

SUMERS' RESEARCH

Bulletin



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CONSUMERS' RESEARCH



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BULLETIN

August 1945

Off the Editor's Chest

THE current meat shortage has driven Boston consumers to eating more codfish—500 percent more cod and other fresh fish than ever before, reports a newspaper survey. Pittsburgh has turned to chile con carne and kidney beans. Consumers in Philadelphia are reported to be using rice (now also scarce) as a substitute for meat. Families in Cleveland are buying up pancake flour to pinch-hit for breakfast eggs which have been hard to find. In these, and in many other ways that CR has noted from time to time, the agencies in Washington, D. C., empowered to direct our war efforts on the home front, particularly the OPA, the WFA, and the WPB, are slowly but unmistakably and deeply working at the job of reorienting the consuming habits of the nation. It is no defense to allege, as some of their defenders do, that "There is a war on." The amount of beef on the range is one of the greatest in history, and any agency or group of agencies imbued with the traditional American enterprising spirit of surmounting obstacles to get the abundant basic supplies of food to those who need it would get the beef from the ranges, where it is plentiful, to the tables of consumers, particularly those in large cities, where, in many cases, good meat is only a fond recollection coupled with an acute sense of loss. The obvious conclusion, in a time when those in high places have made a fetish of "planning," and government planning above all, is that they are following the policy laid down by a high federal food official who, early in the war, quite frankly took the position that it would be wrong to permit the American people to buy as much meat as they

wanted just because they had the money and were in a mood to increase their expenditures for this preferred kind of food.

The precedents for governmental control of the foods that could be eaten and by whom goes back far into history. It is recorded that Julius Caesar on his return from the African War reenacted some of the sumptuary laws that had fallen into neglect during his absence and stationed officers in the market place to seize provisions which merchants were prohibited from selling by such laws. He also sent soldiers to feasts to remove any illegal food that might be served. In later times during the reign of Edward II, of England, in the early 14th century, the number of meat and fish courses that might be served by the nobility was limited, and, a half century later, legislation was enacted which forbade the servants of gentlemen, merchants, and artificers (skilled workers) to have meat or fish at more than one meal a day.

In addition to open and repeated propaganda designed to shift American consumers from meats to a predominantly cereal diet, the government war agencies have tried to change buying habits in other ways. There were a number of OPA officials, in OPA's early days, who held the belief that American consumers were being made to pay for unwanted and needlessly elaborate refinements and gadgets on their household appliances, automobiles, bicycles, and baby carriages. This attitude was reflected in a speech to retailers by David Ginsburg, then OPA General Counsel, October 26, 1942, in

(Continued on page 22)

Scientific and Technical Experts and Editors: F. J. Schlink, R. Joyce, M. C. Phillips, A. R. Greenleaf, and Charles L. Bernier. **Editorial Assistant:** Mary F. Roberts.

Symbols used to indicate sources of data and bases of ratings: A—recommended on basis of quality; AA—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—not recommended on basis of quality; cr—information from Consumers' Research's own tests or investigations; 1, 2, 3—relative prices, 1 being low, 3 high. Note that price and quality are completely differentiated in CR's listings; a quality judgment is independent of price; 44, 45—year in which test was made or information obtained or organized by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt notice of change of address at least a month before it is to take effect, accompanying your notice with statement of your old address with name in full. At least three weeks' notice must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel.

CR will, of course, gladly change addresses for men and women in the services as often as required by changes in station and other circumstances.

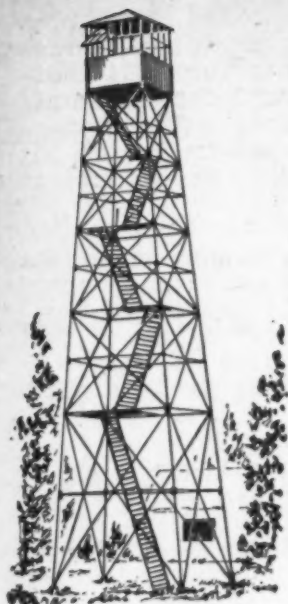
★★★For a brief cumulative index of 1945 BULLETINS preceding this issue, see page 23.

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The Consumers' Observation Post

CARPET SWEEPERS of various well-known makes are again in production for distribution on an allocation basis. Since the number being made is about one-third the normal supply, in the case of one of the leading makes, the consumer who needs to buy one might be wise to put his name on a dealer's waiting list. Because of the shortage of bristles for brushes and natural rubber for tires and bumper bands, the present quality of sweepers is not quite what it was before the war. Consumers who can manage well enough with their present equipment may wish to wait until pre-war raw materials and workmanship are again available.

* * *

IRRITATION of the mouth and gums from Ipana Toothpaste has been reported by several dental officers in the U. S. Navy. According to letters in the Journal of the American Dental Association, the use of this product resulted in a great many cases of "burning mouth," painful irritation of the mucous membrane of the lips and surface of the gums. The inflammation was found to subside when the use of Ipana was discontinued. The Office of the Surgeon General reported a suggestion by the manufacturer, Bristol-Myers, that the reduction in the amount of glycerin ordered by the War Production Board might have been responsible for the irritating effect caused by the action of the essential oils on the gums.

* * *

THE SUGAR RATION of 5 pounds for 4 months is estimated to provide each consumer with four teaspoonfuls a day. Since that must cover all home uses, except canning, people will need to drink their coffee black after the third cup, or use honey on their cereal. It may be some consolation to know that there are experts who claim that drinking coffee without sugar is the only proper way to secure the true flavor of good coffee.

* * *

STOCKS OF MEN'S SUITS will be very low this fall, along with shirts and shorts. There is considerable worry in the trade about outfitting returning veterans who will have outgrown their pre-war "civies." As a matter of fact, the supply of all moderate-priced clothing, whether for men, women, or children, is expected to rival the meat shortage in scarcity. Textile controls and price ceilings recently set by the WPB and OPA are held responsible for the final drying up of sources of supply. One trade association executive seriously suggested that the consumers would have to complain personally and directly to Washington [to their Representatives in Congress or their Senators] to obtain any relief. He pointed out that the diaper shortage was relieved when the mothers took such action.

* * *

THE FIRST FOODS of spring do have that extra something, Victory gardeners will be glad to learn. In a study of some striking and unfamiliar aspects of the relation of soil and soil fertility to the health of animals and human beings who feed on products of the soil and of livestock, Professor William A. Albrecht, Department of Soils, University of Missouri, finds a correlation between the high concentration of calcium in the feed of animals in the spring-time and superior health in their offspring. Although human births are not seasonally concentrated in the spring to the same extent, a survey of 10,000 students indicated that those born in the spring were "taller, heavier, and smarter" than those born during the summer. Professor Albrecht drew the conclusion that "Mother Nature nourishes more efficiently in the spring."

HOW CAN PRICES be held to OPA-set levels when costs have risen, is a problem plaguing manufacturers and retailers. Labor costs, for example, have risen steadily. Business Week reports that recently released figures for 1944 indicate that for shoes, cotton textiles, tobacco, meat packing, and canning, unit labor costs have increased by 23 to 49 percent over 1941 figures. The manufacturer, in order to compensate for these higher costs, has had no choice but to skimp on quality and concentrate production on higher-priced, higher-profit merchandise.

* * *

RAW MILK is still preferred to pasteurized milk by a few consumers. There is no doubt that food values are highest in raw milk, but the potential hazards from milk-borne diseases carried by raw milk are so great that pasteurization is considered the lesser evil. In New Hampshire, a health official noted that certain consumers were being protected from such dangers in spite of themselves. He found that a certain number of dealers were bottling pasteurized milk and labeling it raw.

* * *

TIRES condemned by the OPA as unfit for use were sold at full ceiling prices in the vicinity of Chicago. Suits have been filed in this connection against three garages and one sales agency, according to National Petroleum News. Most of the sales were made by mail, and the average life of the tires was estimated at one block of city driving.

* * *

CANNED GREEN AND WAX BEANS are apparently not popular with consumers. The War Food Administration had one lot of more than 19,000 cases from the 1942 and 1943 packs to dispose of in May. Another lot of nearly 400,000 cases was reported awaiting examination preparatory for being released to civilians. According to the Food Field Reporter, the beans will be disposed of through the school lunch program where the kids will just have to eat 'em. Home canners would be wise to take this surplus into account in planning their canning budget this year.

* * *

ATTENDING A MOVIE is not a form of relaxation in the physiological and psychological senses of the term. In a careful study made on many subjects, and two female subjects in particular, a University of Chicago psychologist found that subject matter of films during a two hour performance evoked an increase in muscle tension that manifested itself in a significant rise in body temperature, of one-half degree to one degree Fahrenheit.

* * *

HORMONE CREAMS have again come in for scrutiny by the Council on Pharmacy and Chemistry of the American Medical Association. Although the impression is given in the promoters' advertising and sales literature that creams containing hormones produce a real and favorable change in the skin rather than a mere alteration of its surface appearance, the Council found that there was a lack of convincing data in support of such claims. Hormone cosmetics were declared unacceptable for inclusion in the forthcoming edition of the Medical Association's New and Non-Official Remedies.

* * *

FEED FOR FARM ANIMALS would no longer be put up in "pretty print" bags of material that can be used for dresses, aprons, and household items, if the recommendation of the Used Textile Bag Manufacturers Industry Advisory Committee had prevailed. With the present scarcity of textiles, it is considered important for the farmers to return all used feed bags. For exactly the same reason, the farmer's wife looks upon the print feed bag as a source of needed material for aprons, curtains, and even house dresses. Protests from the West and Mid-West in the form of Letters to the Editors of local papers are numerous.

* * *

VITAMINS from the drugstore have their place in medical treatment of certain diseases, but in the absence of organic disease the individual who consumes a diet, adequate in calories, and consisting of fruits, milk, eggs, a variety of meats [Editor's Note: When you can get any], and green vegetables, does not need additional vitamins, advises a nutrition journal. Furthermore the journal goes on to point out that vague symptoms such as weakness, fatigability, insomnia, and nervousness are more apt to be due to overwork, nervous tension, or to domestic or financial difficulties than to a vitamin deficiency.

(The continuation of this section is on page 29)

SOCKS, which are an important and standard item of men's apparel, will be even scarcer in retail stores for the balance of this year than they were a year ago. Figures compiled by the trade show that total production in 1944 has decreased by 10%, or some five million dozen pairs from 1943's production. Since military and "rated" purchases by the government have increased 17% over the demands in 1943, the outlook for civilian hosiery is not promising.

Those who have shopped for men's hose lately will have noticed the badly depleted stocks in retail stores. While some stores may have a fairly good selection in some sizes, familiar brands are missing or may be unobtainable in some localities. A reader of the listings must therefore consider that his problem (unless he has time to shop in several stores in one of the larger cities) is not to buy exactly the brand which he may prefer, but to use the listings to help him make the best choice possible among those which are available to him in shops of his city or town.

If one may judge from the marked improvement in the quality of men's socks which was noted by Consumers' Research in our 1945 report, as compared with similar tests made in 1943 and 1944, the time is about here when consumers' goods are going to be of good quality again. With few exceptions, the socks in this test gave a good account of themselves in respect to maintenance of size during laundering, and colorfastness of dye in the sense that the socks retained good color after washing. The usual weaknesses in abrasion resistance were found in some brands, however, and not

Socks



For Men

always in the socks selling at the lower price of 29 or 30 cents, for the difficulty was also present in three brands of socks in the top-price group, selling at 45 cents a pair.

Construction

Men's socks in the popular price ranges are usually *circular knit*. Circular-knit socks are knit as seamless tubes, and many men prefer this type of hose because there is no seam under the foot. Because of the nature of their construction, such socks do not fit too well, but fit is not so important to men as it is to women.

Circular-knit socks are sometimes seamed from the heel up the entire length. Such a seam is called a "mock seam," and it can be easily distinguished from the seam in full-fashioned hose which extends the whole length under the foot. These *semi-fashioned*, sometimes called *fashioned* hose, look better and will fit somewhat better than plain circular-knit socks, and they are cheaper to manufacture than full-fashioned socks.

Full-fashioned hose are higher priced than either *circular-knit* or *semi-fashioned* hose, and they do not have so large a sale as the other types. Socks

of this type are knit as a flat piece, the two edges of which are then seamed together, up the sole and back of the leg. This manufacturing process results in socks that really fit well, but on account of their high price the demand for such socks is very limited. As they are little sold outside of the "luxury trade," no full-fashioned socks were included in the present test.

Size and Length

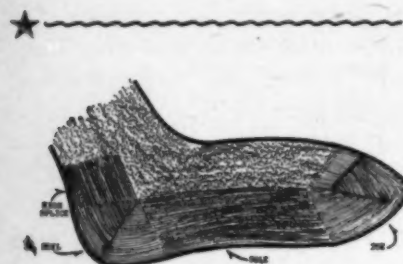
In the past there has been considerable complaint about the irregularities in sizes of hosiery. Manufacturers of socks of good quality usually make their socks somewhat larger than the marked size to allow for shrinkage. On the other hand, some manufacturers knit only two sizes of socks, but stretch them and sell them as six different sizes. Such socks are, of course, a bad purchase for the consumer who may find that, after washing, the socks have become uncomfortable to wear because of shrinkage. Standardization of sizes has been urged on the trade for some years, however, and it may some day be possible for a consumer to purchase a size 11 hose and know that it will be, within a small error or tolerance, the same as size 11 of other manufacturers.

The socks tested by Consumers' Research this year were superior to those tested in 1944 in being nearer to their marked size after washing. Socks in no case shrank more than 5% below marked size, while socks tested last year were as much as 14% below marked size after washing.

It is a good rule to allow for shrinkage by purchasing socks about one-half inch longer from toe to heel than the size wanted

(with wool socks, the allowance needs to be larger—about one inch).

Men's hose are manufactured in different leg lengths, from athletic socks (with a length of 7 to 8 inches) to work socks (14



Socks should be reinforced with extra yarns making the material thicker and denser at points of wear—high splice, heel, sole, and toe.

to 15½ inches). Those included in the present test varied from a little more than 8 inches to a little more than 15 inches.

Materials

Most men's socks sold for dress wear today are made of rayon. Rayon has certain advantages for use in socks in that it is usually free from "rings" because the filaments are even in diameter, and it looks well because of its luster. It is, however, not sufficiently durable when damp or wet nor is it sufficiently elastic to give good wear. For this reason, the parts of socks that receive exceptionally hard wear should be and usually are reinforced to increase their strength and wearing quality. This reinforcement appears in the heel, high splice (back above the heel), foot, and toe. The reinforcing yarns used are usually cotton, which is preferable to rayon for the purpose on account of the tendency of rayon yarns to lose strength when

wet or dampened by perspiration.

Because the fuzzy appearance of cotton after it has been washed is objectionable to many persons, the yarns are usually so knit that the rayon is predominant on the outside and the cotton shows largely on the inside. This is called "plating" and if it is done properly, the cotton will not show through.

Even rayon socks, however, may develop a fuzzy or unkempt effect if decorated socks are made of rayon yarns of poor quality, if the yarns are poorly supported in the hose, or where threads are broken.

When the decorations are woven as part of the body of the hose, the construction is called "genuine wrap" or "true wrap." Poorly secured decorations that are not firmly secured throughout and woven into the body of the sock may wear off or pull out; these are called "mock wrap."

Durability

For most consumers, the durability of a sock is determined principally by the wear received before a hole develops in the region of the toe or of the "high splice." On some socks, the reinforcement at the top of the heel, called the "high splice," is not sufficiently high to reach above the point where the shoe rubs against the sock. The high splice should extend 3 to 3½ inches from the bottom of the sock as it is measured lying flat, if it is to afford the protection against wear which it should.

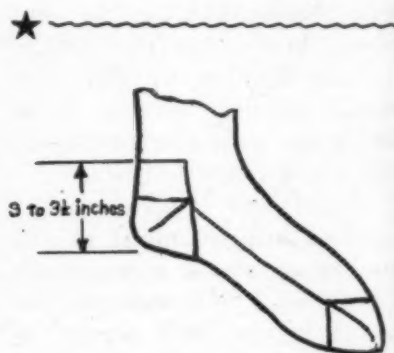
The toe reinforcement should extend back far enough to cover the joints of all the toes when the sock is worn. It is desirable for the toe reinforcement to be stronger than that of the high splice, since in practice a

sock seems more likely to wear out at the toe than any other place. In rating men's socks, Consumers' Research has considered adequate reinforcement of the toe region of greater importance than that of the high splice region, and the abrasion resistance required for the toe was about a third greater than that for the high splice.

Fastness of Dyes to Washing

The dyes of the socks tested this year seem to be definitely better than formerly. None of the socks tested was found to have an unsatisfactory appearance due to deterioration of the dye with washing, while in previous tests, six socks out of 30 showed an objectionable degree of fading after repeated launderings.

The socks were also given a test to determine the extent to which color would "bleed" from



To give proper protection against wear, the high splice reinforcement should be 3 to 3½ inches high, measured in the manner shown.

them in washing. One sock of each pair tested was soaked in lukewarm water for a 24-hour period and the bleeding of color into the water was observed. (A one-inch square of cotton cloth placed in each beaker and thereafter removed

and dried, gave a convenient record of the relative color bleeding into the wash water.) Only one brand, *Bachelor's Friend*, did not bleed color noticeably; five socks (*Armorfoot*, *Coopers*, *Westminster*, and two different *Interwoven* socks) were fair in this respect, and all others were judged poor. It should be noted that a comment in the listings that a sock was poor in this respect does not mean that the sock had a bad appearance afterwards, for as has been noted, none of the socks in this test had an unsatisfactory appearance after washing. Since this loss of color is not of practical consideration to the wearer and will not be a serious matter if proper laundering procedure is followed, poor performance on this point was not given weight in the rating of the socks.

The housewife is advised to wash socks separately from the rest of the laundry. She should also turn socks inside out as a means of helping to preserve the good appearance of the outside of the fabric. On account of the loss of strength of rayon when wet, rayon hose should not be stretched or strained in washing.

CR's Tests

In the test reported, men's socks were rated principally on their performance in abrasion tests made on the toe and high splice regions on a special abrasion test machine constructed by Consumers' Research. Consideration was also given to size, the degree to which the sock returned to marked size after washing and to the height of the high splice region.

All socks were circular-knit and had "genuine wrap" decorations unless otherwise noted. The actual measured sizes of

hose both before and after washing were the same as marked size or slightly larger, except where a comment to the contrary appears in the listings. In order to make conditions uniform, measurements after washing were made under a definite small tension.

To Get the Most from Your Socks



Buy two or more pairs of the same color and pattern at a time, for usually one sock of each pair will fail first, and the socks remaining can then be matched into a pair.



Wash socks promptly after each wearing in lukewarm mild soap suds, thoroughly rinse, and dry. Do not pull or stretch rayon hose when they are wet. Turn socks inside out for washing.



The best way to insure against the development of runs is to roll the sock inside out down to the toe, then place it on the foot and unroll over the ankle.

A. Recommended

Armorfoot (Sold by J. C. Penney Co., Inc.) 33c. Dark blue rayon and cotton with ornamentation. Resistance to abrasion, good. Had some but not too great a tendency to "bleed" or lose color to the wash-water during washing. **1**

Esquire (Sold by Goldsmith Bros., New York City) 39c (3 pairs, \$1.10). Dark blue rayon and cotton with ornamentation. Resistance to abrasion, good. Slightly below marked size after washing. Had great tendency to "bleed" or lose color during washing. **2**

John Ward (Sold by John Ward stores) 39c. Brown rayon and cotton with ornamentation. Resistance to abrasion, good. Had great tendency to "bleed" color during washing. **2**

Westminster (The Nolde & Horst Co.,

Reading, Pa.) 3 pairs, \$1.25. Dark blue rayon and cotton with ornamentation. Resistance to abrasion, good. Somewhat below marked size after washing. Had some but not too great a tendency to "bleed" or lose color during washing. **2**

Pilgrim Nobility (Sears-Roebuck's Cat. No. 86—1930) 49c (3 pairs, \$1.42), plus postage. Blue rayon and cotton with ornamentation. Resistance to abrasion, good. Had great tendency to "bleed" color during washing. **3**

Society Imports (Society Imports, 79 Madison Ave., New York 16) 50c. Dark blue rayon and cotton with ornamentation. Resistance to abrasion, good. Slightly below marked size before and after washing. Had great tendency to "bleed" color during washing. **3**

B. Intermediate

Pilgrim Kingfield (Sears-Roebuck's Cat. No. 86—1902) 30c (3 pairs, 87c), plus postage. Blue rayon and cotton with ornamentation. Resistance to abrasion, fair. Had great tendency to "bleed" color during washing. **1**

Interwoven (Interwoven Stocking Co., New Brunswick, N.J.) 45c (3 pairs, \$1.25). Blue rayon and mercerized cotton with ornamentation. Resistance of high splice to abrasion, fair; resistance of toe to abrasion, best of the 19 brands tested. Had some but not too great a tendency to "bleed" color during washing. **2**

Kresge (Sold by Kresge's stores) 39c. Dark blue rayon, cotton, and other fibers, with ornamentation. Slack length hose with elastic top. Resistance to abrasion, fair. Slightly below marked size before washing. Had great tendency to "bleed" color during washing. **2**

N Superior (Sold by J. J. Newberry Co. stores) 39c. Maroon rayon and mercerized cotton with ornamentation. Resistance to abrasion, fair. Had great tendency to "bleed" color during washing. **2**

Allen-A (Allen-A. Co., Kenosha, Wis.) 50c. Dark blue rayon and mercerized cotton with ornamentation. Resistance to abrasion, fair. Somewhat below marked size after washing. Had great tendency to "bleed" color during washing. **3**

Coopers (Coopers, Inc., Kenosha, Wis.) 50c. Dark blue rayon and cotton with ornamentation. Resistance to abrasion, fair. Had some but not

too great a tendency to "bleed" color during washing. **3**

Interwoven (Interwoven Stocking Co.) 2 pairs, \$1.25. Dark blue rayon and mercerized cotton with ornamentation. Resistance to abrasion, fair. Had some but not too great a tendency to "bleed" color during washing. **3**

C. Not Recommended

Chesterfield (Sold by Kress 5-and-10-cent store, N. Y. C.) 29c. Dark blue rayon and mercerized cotton with ornamentation. Resistance to abrasion, poor. Had great tendency to "bleed" color during washing. **1**

Green Star (Sold by H. L. Green Co.,

Inc. stores) 29c. Dark blue rayon and mercerized cotton with ornamentation. Resistance to abrasion, poor. Had great tendency to "bleed" color during washing. **1**

Westchester (Sold by F. W. Woolworth stores) 29c. Dark blue rayon and cotton with ornamentation. Resistance to abrasion, poor. Below marked size before washing; only slightly below marked size after washing. Had great tendency to "bleed" color during washing. **1**

Bachelors' Friend (Jos. Black & Sons Co., Inc., York, Pa.) 45c. Black rayon and mercerized cotton with mock wrap decoration. Resistance to abrasion, poor. Slightly below

marked size before washing. Did not "bleed" color during washing; best of those tested and far superior to the others in this respect. **2**

Holeproof (Holeproof Hosiery Co., Milwaukee) 45c. Dark blue rayon and cotton with ornamentation. Resistance to abrasion, poor. Had great tendency to "bleed" color during washing. **2**

Wilson (Wilson Brothers, 180 Madison Ave., New York 16) 45c. Dark blue rayon and cotton with ornamentation. Resistance to abrasion, poor. Somewhat below marked size after washing. Had great tendency to "bleed" color during washing. Reinforcement at high splice region a little low ($2\frac{3}{4}$ inches). **2**

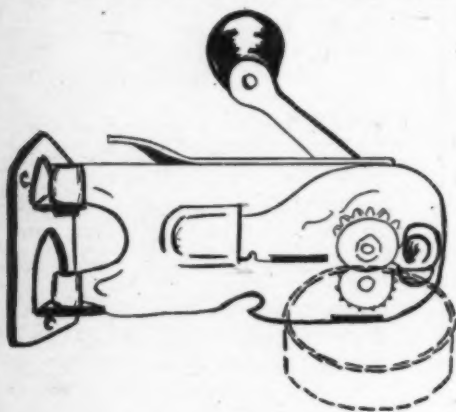


Figure 1

CAN openers of the better type are again beginning to reappear on the market. One such product recently tested by CR is the *Swing-A-Way* Can & Bottle Opener made by Swing-A-Way Steel Products, Inc., 1439 Merchandise Mart, Chicago 54, and retailing at \$2. (See Fig. 1.) This opener, which is a wall type designed to be swung out of the way to a position against the wall when not in use, was found to be easy to operate; it deposited no slivers in the can.

It is important to inspect the cutting blades of any can opener that is given hard use, from time to time, and, if necessary, to sharpen or replace them at intervals. Dull blades are responsible for the dropping of

A Handy Wall-Type Can Opener

slivers of tinned sheet iron into the food and some can openers produce sufficient quantities of slivers of such shape and sharpness as to be a real hazard to the consumer. (See Fig. 2.)

The best types of can openers are those which are

operated by turning a crank or a key; these fold the sharp edge under, where it doesn't constitute the hazard to the fingers that is presented by the gashed upwardly-projecting edge cut by can openers of the old "inch-around" style.



Figure 2

Illustrating the character of the particles that are detached from the metal of a can and dropped into the food by a poor can opener (not one such as is described in the first paragraph of the accompanying text). The illustration is a full-size reproduction of such particles that fell inside a clean No. 2 can when opened with a poor type of can opener (which CR rated C. Not Recommended).

Medicinal
Super Colossal



A REPORT ON CANNED RIPE OLIVES

The Smallest Is "Standard"

SINCE California is the home of Hollywood, creator of "thundering" spectacles, "flaming" dramas, "terrific," "superb," "sensational," and even "great" motion pictures, it is not surprising to find that the nomenclature for sizes of ripe olives from California also reflects this grandiose language. The official U.S. classification for the smallest size is the elegant term "small select standard." From there the scale runs upward in size through Medium, Large, Extra Large, Mammoth, Giant, Jumbo, and Colossal, to Super Colossal. Hollywood itself could not have done a better job.

Lest the unwary purchaser be deceived by such monumental adjectives, however, a California law requires that an illustration showing the size of the fruit and the approximate number of olives in the jar or can must appear on the label. It will be wise to inspect the label carefully in order not to be disappointed as was one CR subscriber, who wrote, "I bought

a small can of . . . ripe olives, labeled 'Extra Large Size'. On opening the can I found they were the smallest ripe olives I have ever seen." Well, not the smallest, perhaps, since there are three sizes still smaller, but well below "medium," in the terms the ordinary consumer understands in describing such fruit.

Many ripe olives are of the Mission variety. Professor Henry Borsook estimates that 6 ripe Mission olives weighing 2 oz. supply 28 International Units of vitamin A, as compared with 540 I.U.'s in a 6-fluid-ounce tumbler of orange juice. On the other hand, the vitamin A content of the same number of ripe Mission olives is about the same as that in a half-cup of cooked, dried kidney beans or navy beans. The average chemical composition of ripe olives is about 1.7 percent protein, 4.3 percent total carbohydrates, ash (mineral matter) 3.4 percent, moisture about 65 percent. The oil content of the Mission olive is

about 20 percent. It will be readily seen therefore that the olive's contribution to essential food elements is not great, its only significant food value being in its oil content. Thus olives are rather in a class with condiments, pickles, and relishes, appetizers—pleasant if you like them, but in no way necessary for health and well-being.

The rich dark color of ripe olives is not acquired by their remaining on the tree longer than "green" olives, but by a special curing process to which they are subjected. Ripe olives are left on the tree only slightly longer than green olives. Their natural color is green with a slight yellow tinge, and they have an unpleasant bitter taste. After they are picked, they are soaked in brine to which has been added sugar to induce lactic acid fermentation. Some packers are reported as preferring to put the newly picked olives in brine as soon as possible; others sort and size them first. Ripe olives must be care-

fully handled to prevent bruises and blemishes which disqualify fruits from being graded as top quality.

The olives undergo a 6-weeks' cure in the brine solution, during which time a bacterial action takes place, somewhat similar to the fermentation of sauerkraut, which softens the flesh of the underripe and toughens that of the overripe fruit so as to make the pack more uniform. Then the olives are processed in an alkaline or lye solution several times, each treatment followed by exposure to the air, or washing in fresh water vigorously aerated with compressed air, to bring about the final development of the characteristic glossy black color. The final process aims at thorough removal of the lye bath by washing or by putting them through boiling water and processing for 5 minutes at 250°F. Then the olives are canned.

Tentative U. S. Standards for canned ripe olives provide for two types: Ripe olives with a uniform, dark color; and green-ripe with a yellowish green to light brown color, frequently mottled. Olives are scored on color, uniformity of size, uniformity of symmetry, absence of defects, character of the fruit (whether firm, tough, or soft), and flavor. To receive the highest score on character of fruit, olives must be firm, yet tender. Olives that are very soft or very hard are given a low score and are graded Off-Grade, regardless of the total score of the product. To receive a high score for flavor, the olives must have a sweet, nut-like flavor, entirely free from residual bitterness and any other objectionable or off flavors. If the flavor is slightly affected by residual bitterness

but still is not objectionable, the olive is not to be graded above Standard (U.S. Grade C), regardless of the total score for the product. The four grades are: Fancy (U.S. Grade A), Choice (U.S. Grade B), Standard (U.S. Grade C), and Off-Grade.

Grading of a number of brands was carried out by a firm of consulting chemists skilled in this special field. Labels were removed and jars or cans were sent them identified solely by a code number so that the testers did not know the names of the brands being examined. Ratings are cr45.

A. Recommended

Glick's Brand Extra Fancy California Olives (Packed by B. E. Glick & Sons, Corning, Calif.) One sample: 8¾ oz., 18 "Colossal" olives, 40 cents; second sample, 10¼ oz., 23 olives, 53 cents. Graded Fancy (U.S. Grade A).

Lindsay Brand Jumbo Ripe Olives (Packed by Lindsay Ripe Olive Co., Lindsay, Calif.) 9½ oz., 25 "Jumbo" olives, 45 cents. Graded Fancy (U.S. Grade A).

Maywood Colossal Olives (Maywood Packing Co., Corning, Calif.) 9 oz., 21 "Colossal" olives, 45 cents. Graded Fancy (U.S. Grade A).

Oberti Brand Giant California Ripe Olives (Packed by G. Oberti & Sons, Madera, Calif.) One sample: 11 oz., 39 "Giant" olives, 35 cents; second sample, 9¾ oz., 36 olives, 38 cents. Graded Fancy (U.S. Grade A).

Old Monk Super Colossal Supreme California Ripe Olives (Grown and Packed by Old Monk Co., Corning, Calif.) 9¼ oz., 15 "Super Colossal" olives, 53 cents. Graded Fancy (U.S. Grade A).

San Irano Giant California Olives (Packed by La Mirada Olive Co., Inc., General Office, San Francisco) 10 oz., 34 "Giant" olives, 33 cents. Graded Fancy (U.S. Grade A).

Sand W Extra Large Ripe Olives (Distributed by S and W Fine Foods, Inc., San Francisco, Calif.) 9¾ oz., 49 "Extra Large" olives, 31 cents. Graded Fancy (U.S. Grade A).

Sun-Ripe Brand Extra Large Ripe Olives (Packed by Los Angeles Olive Growers Association, Los Angeles, Calif.) 9¼ oz., 48 "Extra Large" olives, 26 cents. Graded Fancy (U.S. Grade A).

Sylmar Extra Large Ripe Olives (Packed by Sylmar Packing Co., Los Angeles, Calif.) 9¼ oz., 49 "Extra Large" olives, 43 cents. Graded Fancy (U.S. Grade A).

C. Not Recommended

Graber Tree-Ripened California Olives (Grown and Packed by C. C. Graber Co., Ontario, Calif.) 6¾ oz., 26 "Super Colossal" olives, 41 cents. Graded Substandard because of excessive number of defective and discolored olives present.

La Mirada Brand Olives (Packed by La Mirada Olive Co., Inc., General Offices, San Francisco, Calif.) Padre style, green ripe. 9¼ oz., 66 "Medium" olives, 35 cents. Graded Standard (U.S. Grade C).

Matmor Colossal California Ripe Olives (Packed by Matmor Olive Co., Lindsay, Calif.) 9 oz., 24 "Jumbo" olives, 45 cents. Graded Standard (U.S. Grade C).



Effects of Acids in Foods on Teeth

EIGHT years ago, Consumers' Research called to its readers' attention the harm done to the enamel of the teeth of persons making excessive use of acid fruit juices, shown in studies by Dr. Samuel C. Miller with Professor Isaac Neuwirth as collaborator, both of the New York University College of Dentistry. The work of Miller and Neuwirth also showed that repeated or long-continued sucking on hard candies, made almost wholly of sugar, resulted in decalcification of the teeth, with rapid destruction of teeth in extreme cases. It was their assumption that this was due to the constant bathing of the teeth in an organic acid bath produced by the action of the enzymes and bacteria present in the saliva, on carbohydrates.

Additional evidence on harm to teeth by unsuspected means has been accumulating. One investigator reported that appreciable quantities of the calcium of the teeth are dissolved when an aspirin gargle is used.

Lieut. Col. Amos R. Koontz, writing in *Hygeia* of June 1942, remarked that acid-containing candies and medicines apparently predispose to caries by direct removal of calcium from the structure of the teeth.

From the ultimate consumer's standpoint there is no doubt that much has been done by the misdirected publicity of those desirous of increasing sales of citrus and other acid fruits, and by some dietitians, who have maintained that such acid foods could do no harm to the body, because as utilized

IN recent years there has been a growing appreciation of the fact that much harm is done to teeth by excessive use of sweets. This source of injury to the teeth was noted as long ago as 1868, when Robert Tomes, writing in *Harper's Magazine*, referred to the harm from overuse of sugary foods:

"The excessive use of sugar and candies does great mischief. It is not only the bad effect of the acids produced by their decomposition, but the grittiness of these substances which wears away the gum, bares the roots of the tooth, and spoils the mouth. This is the chief danger of the use of tooth powders."

In this brief comment, Mr. Tomes, though he may possibly have been in error about the damage done by the "grittiness of these substances," not only foreshadowed results of a great deal of important recent scientific work in the field of tooth decay, but put his finger upon the chemical reason for the injury done to tooth structure—the acids produced by decomposition of the sugary carbohydrates. The accompanying article, based on the work of John W. Trask, M.D., Edwin E. Ziegler, M.D., and Edward C. Maloof, D.M.D., presents one of the most important aspects of this problem, reporting a fine example of the use of modern methods of scientific dental research.

Teeth alone are by no means the only mineral substance subject to serious damage by the effects of sugar in solutions. It is a well-known phenomenon in food plants that concrete floors can be eroded, crumbled, and ultimately disintegrated by the growth of bacteria which develop in residues of milk, fruit acids, and sugars that are spilled on the floors during the manufacturing process. Something of the same sort of process accounts for the injury done to the structure of human teeth when they are bathed too long and too frequently in solutions of fruit or other acids and in the acid products of carbohydrate fermentation.

"Since this article was prepared for publication, scientific studies by Naval Medical Research Institute investigators J. S. Restarski, R. A. Gortner, Jr., and C. M. McCay have been reported that confirm earlier judgments regarding risk of serious damage to teeth by the phosphoric acid contained in at least one of the cola beverages. The active tooth-corroding action due to the phosphoric acid, which is a strong mineral acid unsuitable for use in food and beverages, was found to be aggravated by the action of the sugar contained in the drink. While the Naval Medical Research Institute experiments were conducted on rats, other studies would indicate little reason to doubt occurrence of damage of a parallel character to the teeth of human beings from the acids contained in popular beverages."

by the body, they have an alkaline rather than acid effect, indeed actually tend to counteract acidity. Those who have

taken this position that the acids are turned to alkali in the stomach ignore two important considerations: one, the effect of the acid on the teeth *before* the acid is converted to an alkali; and the second, more recently discovered and commented upon, that before the acids have been alkalized, they may cause an acidic condition, reducing the natural alkaline reserve of the body. As one writer put it, no acid is neutralized in the body except by reaction of some alkali supplied from some source within the body. It can, therefore, be quite misleading to refer to the alkaline effect of acid fruit juices.

According to a paper by Dr. Basil G. Bibby in a symposium on dental caries published by the University of Pennsylvania Press (1941), the accumulated evidence shows that acid is definitely concerned in tooth destruction and that such damage can be produced by acid directly or by the acid products of bacteria in the presence of carbohydrates (sugars and starches). It is well established that such fermentable carbohydrates when taken into the mouth definitely increase the acidity of dental plaques (the films of mucus that cover the enamel surfaces of teeth and harbor bacteria).

Investigators have shown a marked increase in the lactic acid content of the mouth within 10 minutes after tablets of starch or sugar have been dissolved, this rapid increase in acidity having been demonstrated to be due to the activity of acid-producing micro-organisms (bacteria).

Since so many writers on dietetic subjects have favored the freest use of acid foods and almost none have called atten-

tion to their being undesirable in any important respects, we believe our readers will find of much interest the following condensed presentation of a paper entitled "The Solvent Action of Various Substances on Teeth: A Quantitative Determination," by John W. Trask, M.D., Edwin E. Ziegler, M.D., and Edward C. Maloof, D.M.D., Boston, Mass., which appeared in the Journal of the American Dental Association for July 1940. This digest is presented by kind permission of the Journal and the several authors of the paper, reporting a study which we believe to be of exceptional importance to consumers and to all interested in diet and nutritional problems.

Dental caries [tooth decay] is a common disease of man. A carious tooth, in itself, is considered to be a minor affliction; neglected, it may become of serious importance. The ultimate results of neglected dental disease in morbidity and mortality has not been, and probably cannot be, accurately determined. They are, however, conceded by all to be of considerable importance. . . .

There are, no doubt, multiple factors in the etiology [causation] of dental caries. . . . The extrinsic factors would consist of the direct effect of substances present in or taken into the mouth, such as saliva, bacteria and their products, food and drink. . . .

There seems to be among dentists a firm belief, based on long experience, that acids in general are harmful to teeth, causing decalcification and thus paving the way for decay, the acid most frequently mentioned in this connection being lactic acid. The fermentation of carbohydrates in the mouth by *Lactobacillus acidophilus*, producing lactic acid, is generally believed today to be the chief cause of caries. . . .

Oral hygiene, today, is based on proper diet and mouth cleanli-

ness. Most authorities recommend that the mouth be kept clean by brushing the teeth. In addition, they advise a low carbohydrate diet, usually mentioning candy specifically.⁶

West and Judy⁷ have shown that solutions made of hard candies such as lime drops, lemon drops and orange drops have a decided decalcifying action on teeth. These fruit-flavored hard candies usually contain citric acid and some may contain tartaric acid. Miller and Newman⁸ present cases of advanced dental decalcification due to using hard candies and excessive amounts of citrus fruits.

It is believed that many substances used as food can cause decalcification of teeth directly. The above-mentioned authors have demonstrated that foods containing citric acid will do so. It is highly probable that foods containing similar acids, such as acetic, lactic, tartaric, benzoic, malic and oxalic, will also cause decalcification of teeth. Experimental evidence of this is presented.

A start has been made in studying quantitatively the direct effects of acids and various other substances on the teeth. Chemically pure compounds and other simple substances commonly present in the mouth or in food and drink have been studied to determine their direct effects. . . .

All the substances used were prepared in aqueous solution and were filtered when necessary. Unless otherwise noted, all the solutions used were made up to a tenth normal or to a tenth molecular concentration. . . .

The solution was . . . allowed to flow slowly through the apparatus from the Erlenmeyer flask [about 2 drops per minute], thus constantly, but slowly replacing the solution about the pieces of tooth [weighed fragments contained in a small glass cup placed at the bottom of a syringe barrel], without mechanical agitation of any kind. In every experiment, the pieces of tooth were allowed to remain in the apparatus for exact-

Solution of Tooth in Five Days By Various Common Substances —Abridged Somewhat from Original Table

Substance	Concentration	pH	Tooth Dissolved Per Cent	Remarks††
Citric acid	N/10	2.3	78.8	
Phosphoric acid	N/10	1.8	77.7	
Lactic acid	N/10	2.3	72.6	
Acetic acid	N/10 (0.6%)	3.0	70.3	Body temperature
Acetic acid	1%	-----	69.0	
Acetic acid	N/10 (0.6%)	3.0	50.5	
Benzoic acid	Sat. sol.†	-----	67.0	Body temperature
Benzoic acid	Sat. sol.	3.17	13.9	
Tartaric acid	N/10	2.2	30.8	
Oxalic acid	N/10	1.47	10.6	
Boric acid	M/10	-----	6.4	
Boric acid	M/10	5.17	4.1	
"Soda water" (CO ₂)	?	4.8	12.2	Body temperature
Sodium chloride	0.85%*	6.8	6.0	(No thymol)
Sodium chloride	0.85%	6.1	1.7	(With thymol‡)
Dextrose	M/10	-----	2.5	(No thymol)
Dextrose	M/10*	7.2	1.0	(With thymol‡)
Sucrose	M/10	-----	0.8	
Sucrose	M/10*	7.13	0.6	
Sucrose	M/10*	7.1	0.2	Body temperature (with thymol‡)
Light brown sugar	M/10*	6.44	0.9	(With thymol‡)
Dark brown sugar	M/10*	5.85	1.7	(With thymol‡)
Raw sugar	M/10*	7.2	0.0	(With thymol‡)
Lactose [milk sugar]	M/10	6.3	7.0	(No thymol)
Lactose	M/10*	7.1	1.2	(With thymol‡)

†Sat. sol.—saturated solution; solutions made in distilled water unless otherwise indicated.

*Made with hot tap water.

††Room temperature in all cases except as indicated.

‡Thymol was added in some cases as a preservative, and inhibitor of bacterial growth.

A pH of 7 corresponds to neutrality; acid solutions have pH's below 7, alkaline solutions, above.

ly five days. They were then removed, washed in distilled water and air dried on blotting paper under a beaker at room conditions for twenty-four hours.

The pieces of tooth were then reweighed and the percentage of loss in weight calculated. . . from 400 to 600 cc. [of the solutions] went through the apparatus in five days. . . .

As there is no mechanical action of the solution around the fragments of tooth, the results are known to be entirely from chemical and solvent action. . . .

The fragments of tooth consisted of both enamel and dentinDental caries. . . involves the dentin more than it does the enamel. . . .

The results of the experiments are summarized in the accompany-

ing table. Each line in the table represents a separate experiment, The experiments have been grouped for convenience in the following classes, according to the substances studied: acids, alkalis, salts, waters and carbohydrates.

The acids at the top of the table, namely citric, phosphoric, lactic, acetic, benzoic, tartaric, oxalic and carbonic (CO₂), had the most marked effect in dissolving the tooth. The alkalis show no significant solvent action on tooth. The waters dissolved insignificant amounts of tooth. Distilled water dissolved more tooth than did tap water. This is attributed to its lower pH, due to carbon dioxide in solution, absorbed from the air. . . .

The amount of tooth dissolved increased rapidly with a drop in the pH [increase in intensity of acidity]. . . .

Comment

This work supports the generally accepted theory that lactic acid causes demineralization of teeth. Lactic acid may be produced in the mouth by bacterial decomposition of carbohydrates or it may be taken into the mouth in the form of sour milk or prepared lactic acid milks, such as acidophilus milk. The acid milks may also seed the mouth with *Lactobacillus acidophilus*. This work certainly supports the doctrine that the mouth and teeth should be kept clean, at least those of people who eat carbohydrate foods.

It may be doubted whether bac-

terial action in the mouth can produce so much acid as is taken into the mouth in the form of acid foods. It is suggested that certain acid foods, commonly used, may play the dominant role in decalcification of teeth. A piece of pickled cucumber, between two teeth, with a pH of 2.7, as determined by Bridges and Mattice,¹⁰ would certainly tend to decalcify the adjacent teeth. These authors have published more than 2,000 estimations of the pH of representative foods. From their work, it is noted that more than fifty-six different items of food and drink fall into the pH range between 2.05 and 4.00. This work of Bridges and Mattice is outstanding. It is highly recommended to anyone interested in the subject. It is noted that most of the foods with an unusually low pH are fruits and berries. Of course, all pickled foods made with vinegar, including certain salad dressings, have a low pH. Certain popular drinks are also quite acid in reaction.

It may be worth pointing out that these types of food and drink which are excessively acid are not

used by the primitive tribes that have a low incidence of dental caries.¹¹ Neither are they used in general by any animals. Civilized peoples are too well supplied with a tremendous number of different foods, many of which are probably non-essential and some perhaps undesirable. In contrast, most primitive peoples have available only a small number of food items. . . .

Summary

1. Starches and sugars *per se* do not decalcify teeth, but lactic acid formed from these may do so.
2. Acid foods having a pH of about 4 or below may prove to be the most important factors in dental decalcification.
3. Other acids than lactic found in foods have been shown to cause extensive decalcification of teeth.
4. Many commonly used foods are acid and have a pH of from 4 to 2.05. . . .

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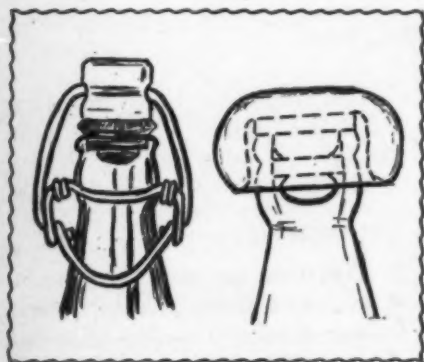
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BOTTLE CLOSURES similar to those used on old-fashioned "pop" bottles before the advent of metal crown caps are now available in the 5-and-10-cent stores. One recently marketed consists of a glass stopper with rubber sealing ring fastened to a heavy wire frame constructed on a toggle lever principle familiar in the "Light-

ning" type preserving jars. The wire frame is fastened to the neck of the bottle to be capped by twisting together with pliers the ends (not shown) of the middle wire seen in the sketch. The device, when tested, retained pressure in a bottle of carbonated beverage effectively for several months. The device has the disadvantage that for durability it must be left on the same bottle, for if reused, the fastening wire will soon break at the twist; this requires that the contents of other opened bottles which are

to be saved must be poured into the bottle carrying the sealing device, which means, of course, a loss of gas or pep from the beverage in the process of transfer.

Another gadget meant for the same purpose is the *Korkall* consisting of a wooden cap inside of which is a wood stem with rubber seal. This device is intended to be pushed on the top of the bottle without twisting or turning. The *Korkall* was tried and found ineffective.

Bottle Closures

Some Household

★ ★ ★

★ ★ ★

Cementing Materials

Putite and *Tilon*, both made by the same company (Ever-Plastics Corp., 420 Lexington Ave., New York 17) are plastic products designed to be used for filling in the cracks between a kitchen sink or a bathtub and the wall. *Putite* is also recommended for leaks of all kinds, and the caulking of boats. Both products consist of lithopone (zinc sulfide and barium sulfate, much used as a paint pigment) and asbestine (a form of talc, also a paint material) made into a stiff paste with rosin and probably some mineral oil; their characteristics are not identical, but the differences between them are unimportant.

* * *

Tileko is a product widely sold in dime stores. It is a useful but expensive cement for certain household purposes, in the form of a firm white paste to be squeezed from a 4-oz. tube. According to the labeling, *Tileko* is to be used for filling crevices between bathtubs and tiled walls, and for repairing of leaky shower stalls. This product is composed chiefly of calcium carbonate or chalk (58%) and clay (16%), with about 12% of manila resin. Other ingredients are zinc sulfide (3%), alcohol (9.5%) and kerosene (2%). This cement is of a type which sets rather slowly by evaporation of the alcohol and hardening of the resin. It hardens sufficiently to permit light contact with-

out damage in any ordinary application in about two hours. *Tileko* has advantages over some quick-hardening cements in that it maintains a degree of plasticity in use, which is a very valuable property where a crack of somewhat variable width is to be filled. An objection to *Tileko* is the unsatisfactory packaging. At least two of the several tubes purchased by CR have given difficulty by the fact that the contents have hardened or segregated so much that it was almost impossible to squeeze them out as a paste, as intended.

Another product widely sold in 10-cent and hardware stores is called *X-Pandotite Cement* (X-Pando Corp., Long Island City, N.Y.; 10c for a 3-oz. can). This product is a powder to be mixed with a little water into a heavy paste, in the way in which plaster of Paris is mixed and used. Directions on the label recommend *X-Pandotite* for a wide variety of household uses, including the filling of cracks around bathtubs, basins, medicine cabinets; repairing of loose tiles; fastening of wall fixtures; for filling cracks in tile, marble, wood, metal, concrete or plaster; anchoring bolts, screws, railings, umbrella and tool handles; kitchen utensils.

The makers of *X-Pandotite* claim that it is unaffected by water, steam heat, and vibration, and by oil or soap, and by alkali solutions after setting.

Short-time tests in the laboratory at CR indicated that these claims would be substantially borne out in practice. The chief ingredients appear to be barium sulfate, powdered sodium silicate, and starch. These are typical ingredients of what in trade circles are known as "acid proof" or silicate cements. Actually this cement was found not particularly resistant to acids but stood up well under water solutions of soaps and an alkali.

Tilette Plastic Cement (Tilette Cement Co., Inc., New York City; 25c for ½-lb. jar) is a product intended for setting of loose tiles and bathroom fixtures (also said in a rather grandiose and untenable claim, to repair "everything in the household"). Analysis shows *Tilette* to be a mixture of sodium silicate and two carbonates, calcium carbonate and a water-soluble carbonate. It is judged to be essentially a paste made by mixing whiting with a sodium silicate solution. A small amount of sodium carbonate may be present as such, or may be a result of impurities present in the sodium silicate solution.

Artcraft White Tile Cement is a paste of casein and water with borax. Contrary to the labelling, which implied that a volatile solvent was present, this product does not contain a volatile solvent; it may differ from cement of the same brand made at an earlier time.

Artcraft Iron Cement (Artcraft Mfg. Co., Cleveland, Ohio) is a familiar type of so-called "iron cement" intended to be used for repairing leaks in cast iron furnace casings, leaking pipes, tanks, boilers, radiators, stoves. The composition is powdered iron (about 80%) mixed with a cementing material, calcium sulfate (plaster of Paris), and a small quantity of a carbohydrate material similar to dextrin, introduced presumably as a retarder of the hardening process.

The best known product in this field, **Smooth-on Cement** (Smooth-On Mfg. Co., Jersey City, N.J.), when analyzed was found to consist of about 87% commercial iron filings, plaster of Paris 11%, barytes (a filler) about 20%.

* * *

Wernco Plastiktrim Adhesive (R. D. Werner Co., Inc., New York City) is described on the label as an "industrial adhesive" for plastics, wallboard, glass, wood, porcelain, bathroom tile, linoleum, etc. Judging by its directions, the principal use for *Plastiktrim* will be for attaching moldings to walls. It is to be squeezed from the tube in the form of a continuous ribbon along the center of the molding, or the edge to which molding is to be applied. Chemical analysis shows that the ingredients of this product are chiefly rubber (probably reclaimed), dispersed or diluted in a petroleum naphtha vehicle. There is in addition a small amount of filler consisting of chalk, silica, and asbestos fibers.

* * *

Craftsman Quick Setting Cement is a product recommended for bonding paper or cloth abrasive discs to steel, wood, or rubber plates (as of sanding tools

and machines). It is sold in Sears Roebuck stores, at 39c for a ½ pint jar. Analysis shows it to be a concentrated solution of sodium silicate with a trace of a water-soluble gum; a water-soluble red dye is also present. Sodium silicate is very widely used as an adhesive, also as a base of one of the two popular types of cements sold in tubes in the dime stores and hardware stores (the other being a cellulose solution in volatile solvents such as *Duco Household Cement*).

* * *

So-Lo is a brand name well known in 10-cent stores and hardware stores for various cementing materials including repair material for shoe soles. *So-Lo Linoleum and Stair Cement* has been analyzed; this appears to be an oxidized asphalt or "mineral rubber" cut or dissolved in a petroleum product similar to naphtha. (Mineral rubber is a distillation residue from the petroleum industry.)

Sta-Fast Cement, manufactured by American Wood Type Mfg. Co., New York City, and selling at \$1, is recommended by that company for use on metal, leather, paper, wood, and viscose and acetate sheets. This product, which is one of the newer type of cements, is shown by analysis to be about

60% resin of the polystyrene type and 40% of a solvent such as butyl-acetate. In appearance the product is a thick, white emulsion having the odor of acetates. It is milky white on application and transparent when dry. Practical tests with the product gave satisfactory results; its strength is not great, but it will serve well in some uses where considerable adhesion area is available and no great strain will be applied.

"Mar-Mora," the Invisible Mender (V. F. VanStan Co., 3844 Germantown Ave., Philadelphia; 15c) is a glue with a strongly acid odor of cider-vinegar (which contains acetic acid, an acid of a type typically added to glue to keep it in the liquid form and prevent its hardening before use). The label of "Mar-Mora" gives the distinct impression that it is something new and different and not a glue, for the claim is made that it "mends everything—glass, china, marble, ivory, bone, jet, wood, etc., etc." A bone toothbrush handle was broken into three parts and the pieces reconnected; a broken china cup was also mended. The joints adhered well so long as the material was dry, but upon soaking in water overnight, adhesion became weak and the test sample came apart easily in the hands.

**Buy MORE
U. S. War
Bonds and Stamps**

PHOTOGRAPHIC amateurs will now be able to purchase Army and Navy surplus film for their roll-film cameras. This is film that had been made for airplane cameras, but which had been kept in stock long enough so there was doubt of the wisdom of its use for military purposes. Samples of this film recently released for consumer purchase have been bought by Consumers' Research. Results of tests indicate that the quality of some of the film is good; its marking, however, is definitely unsatisfactory, and some shows pronounced edge-fog.

The sample of re-rolled surplus film (of which 13 million feet are said to be available) was marked Army Surplus Panchromatic. (The retailer from whom the sample was bought has since gone out of business. The risk of such an occurrence must be kept in mind by any consumer sending cash or check for surplus film on mail order; it will usually be best to purchase, when practicable, from local retail photographic dealers or department stores known to have the film in stock.)

Prices that have been asked for this type of film (5 rolls postpaid) are as follows: No. 127—\$1.45, No. 120 and No. 620—\$1.75, No. 116 and No. 616—\$2. Distribution at present is through the Empire Photo Company, Box 939, Newark, N.J., who are accepting mail orders, and according to telephone advices, film will continue to be supplied by this company so long as it is able to obtain government surplus film. This firm asserts that it will produce satisfactory pictures from correctly handled and exposed films sent them for processing, or will replace defective film. Amateurs who do their own developing must remember

ARMY SURPLUS FILM

that this Army surplus film is of the panchromatic type and can be developed only under a green Wratten safelight or in total darkness; a red safelight will not do.

The label of the re-rolled sample that was tested by CR stated that the Arrow Photo Company, Processors and Distributors, 1947 Broadway, New York 23, had made tests which indicated that the film was satisfactory for non-technical uses. It also stated that the time set by the original manufacturer for development had expired, *but no new date was set, and no information was given as to the speed of the film.* Both of these items are, of course, vitally important to the amateur, as CR understands there are at least 4 types of government film being made surplus and available for consumers' use, whose speeds vary over an 8 to 1 range, from Weston 25 to Weston 200, with intermediate values of 50 and 100. Obviously unless the spools are marked with the correct speed for the particular lot, the amateur is likely to overexpose or underexpose his negatives. The government regulations should require *correct speed marking* on each roll of surplus film.

Photographically the surplus film was found to be a panchromatic emulsion of excellent quality, having a speed of about 50 Weston. The base of the film was slightly heavier and stiffer than that generally used for amateur roll film. It also

had more curl than ordinary roll film and, therefore, may not lie as flat in the focal plane as normal film, and the result may be some non-uniformity of focus when lenses are used at large apertures. The cutting and rolling of the film appears to have been less carefully done than that of film distributed by the original manufacturers, as some dirt and abrasion marks were present. As these scratches are likely to show up as black lines or markings in a relatively short time, the rolls should be marked with an expiration date and this date should not be very far ahead. The first roll of film exposed and developed by CR gave excellent results, but the second and third rolls—as well as a portion of a fourth roll which as a check was* developed without being exposed first—had a considerable amount of edge-fog, sufficient to make the negatives almost worthless. It is believed that good performance of the first roll was because it was loaded promptly upon receipt, whereas the other rolls were unpacked and placed on a shelf where because of a lack of a light-protective covering (carton and metallic foil), film edges became fogged. The war surplus film, being thicker than normal film, does not wind so as to lie well inside the flange rims of the spool, as normal film does, a difference which may account for a special susceptibility to edge-fogging. It is believed that users of this film should take unusual precautions to protect the rolls of film, both before and after exposure in the camera, from exposure to strong light (or to ordinary light for any considerable period) if they are to obtain satisfactory results. Load and unload in dim light only.

Stop-Leaks for Automobile Radiators

with notes on products for similar use with house-heating boilers

MANY automobile owners will have discovered when changing their winter radiator liquid containing ethylene glycol or alcohol anti-freeze for the water which serves the purpose in the warm seasons, that one or more leaks have developed in the radiator. Such leaks are the natural result of the corrosive action of the water on the alloys and the solder which constitute the radiator structure. Such leaks are usually of very small size, no bigger than a pinhole, and for twenty years or more it has been common to plug these by adding to the water in the cooling system some substance that is capable of clogging up fine leaks mechanically.

Probably the earliest such substance was simply linseed meal, which was expected to disperse in the water in the cooling system, and so find and plug any small openings. Originally and before the promoters of these products developed penny-saving methods of manufacture, the meal was made from whole linseed rather than from the exhausted linseed cake used for cattle feed. With the whole meal, there was some possibility that the oil present would oxidize so that the particle would adhere strongly, making the seal permanent or semi-permanent, whereas with use of the exhausted linseed presscake, car owners were merely introducing a suspended material to circulate through the radiator and drift into small leaks. Then someone conceived the idea of mixing a small amount of aluminum powder with the linseed meal, to make

it look like metal, and give it strong advertising and sales value. The consumers got the feeling that they were sealing metal with metal, but practically speaking, the addition probably gave no particular or demonstrable improvement over the earlier linseed presscake product.

About fifteen years ago there appeared on the market a new product consisting of a tannic extract in solution, such as liquid quebracho extract, a substance also used in tanning operations. The tannin was supposed to seep through at the leak and dry, giving a permanent seal. In practice it was found that there was need also for some suspended material, and finely divided asbestos floc has been used for this purpose with the tannin liquid.

Some Commercial Anti-Leaks Analyzed

Dupont Cooling System Sealer (E. I. DuPont de Nemours and Company, Inc., Wilmington, Del.; 8-oz. bottle, 50c) is one of the best known of recent anti-leak preparations. Analysis of this product indicates the presence of about 3% of asbestos fibers, 2% dextrinized flour, 0.2% of sodium bicarbonate, 11.5% of denatured alcohol (95% grade). The rest, or about 83%, is water. This material contains about 5% total solids. The asbestos fibers are to plug up the pinholes; the dextrinized flour is used as an adhesive or binder in the manner already described for a tannin extract. Because the dextrinized flour can ferment, sodium bicarbonate has been

introduced to neutralize the organic acidity that will then appear. The denatured alcohol present serves to prevent fermentation in the bottle.

Radiator Neverleak (Liquid Veneer Corp., Buffalo) is much the same as the preceding, containing gum resins 10%, tannin extract 2%, clay 2%, borax 2%, denatured alcohol 7.6%, and water 76.4%. In this case the finely divided solid or suspended matter is clay. The borax puts the shellac into solution, and when the material is diluted greatly, as in use in the radiator, the shellac will be precipitated in finely divided form to help plug leaks.

Serco (Service Supply Co., Denver; ½-pt. can, 75c). The maker of this tried, so to speak, a little of everything. The insoluble suspended material included asbestos, gypsum, powdered chalk, cornstarch. Ammonia and alcohol together appear to be used to deal with fermentation. Analysis is as follows: Asbestos fibers 3.8%, gypsum 1.8%, powdered chalk 2.1%, cornstarch 6.0%, ammonia water 0.2%, denatured alcohol 7.4%, water 78.7%, and red dye.

Sovereign Aluminum Radiator Cement (Merck and Co., Rahway, N.J.). When analyzed it was found to be the classical material, analysis showing 74% flaxseed presscake, 18% powdered aluminum, and 8% oleic acid.

G.M.C. Radiator Solder (General Motors Truck Co., Pontiac, Mich.) consisted of asbestos fibers 2.2%, powdered chalk 2.2%, rosin 2.6%, glue 1.3%, denatured alcohol 4%.

water 87.7%. In this product, the dissolved glue takes the place of tannin extract as a binder, and rosin dissolved in the denatured alcohol acts in the manner mentioned for shellac in *Radiator Neverleak* brand.

Dental Metal - Radiator Stop Leak (Standard Factories Co., Des Moines) was 10% powdered aluminum with 90% flaxseed presscake and a substance similar to quince seed.

Radiator Seal (Radiator Seal Co., Council Bluffs, Ia.) was similar to the preceding product, containing 1/3 of 1% powdered aluminum, with flaxseed presscake (flaxseed meal from which the oil has been extracted).

Warner Liquid Solder (Warner-Patterson Co., Chicago). This is one of the best known brands of anti-leak liquids. Its approximate composition a decade ago was cellulose fibers from wood 3%, starch 3.5%, gum tragacanth 0.5%, alcohol 11.5%, salicylic acid 0.1%, iron salts 0.1%, water 82.5%. (This does not correspond to the composition given in the patent whose number appears on the package. Ingredients named in the patent but not found in the package were asbestos, wheat or rice paste [16%], gum arabic, English rosin, safrol.) According to a recent analysis, *Warner Liquid Solder* contains an appreciable amount of isopropyl alcohol, dextrin, and vegetable gum, with practically no ash or inorganic filler; a small amount of cotton fibers was present.

A number of compositions for similar material recommended by various trade papers were also considered. Mostly, these closely reflected the composition of one or more of the products described and analyzed in

the foregoing.

One of the best formulas of a material for this use is that of the British Air Ministry, March 1938, which calls for 10% aluminum powder, 70% crushed linseed, 10% ferric acetate, 10% tannic acid, the ingredients to be passed through a sieve of 25 mesh, then properly mixed. The limits of purity and quality set upon certain ingredients were a good deal closer than the nature of the material warrants, so that, as one commentator remarks, the British with their usual care seem in this case to have plated the gilded lily.

There can be a wide range in the efficiency of the various stop-leaks. Sometimes the powder may be so fine that most of it gets out of the radiator before what is left is able to plug up the leak, and thus it may take an undue length of time to do the job. Except for the use of coarse particles, which in some cases might clog the fine passages of the radiator, there seems to be no particular danger of harm to the radiator, in spite of the fact that one government document warned that there was danger to the radiator from the possible organic acid content of the anti-leak product or development in service of acidity and possible corrosion. It is believed that the possibility of harm to be done by this cause is slight, considering the other corrosive influences that many radiators are subjected to in normal use without particularly rapid deterioration.

From a practical standpoint, dry mixtures of fine linseed meal (about 90%) with aluminum powder (about 10%) would seem to be the most economical and satisfactory solution of the

problem—and, as has already been suggested, the aluminum powder is probably not necessary, as its addition in commercial formulas may have been chiefly for "psychological reasons."

A final point to keep in mind is that the liquids and powders used for plugging radiator leaks cannot be counted on to do a certain or lasting job; when the corrosion progresses somewhat further, so that the holes become large, the stop-leak material will no longer plug the holes tightly and surely enough. They are thus to be considered effective as stop-gaps (as well as stop-leaks) with their major usefulness in what might be called an intermediate stage of radiator leakiness.

Stop-Leaks for Heating Boilers, of Similar Composition

Products of a very similar nature have been widely sold. These are to be used by pouring them into the water in a heating boiler, and are expected to plug any small leaks in the boiler (or in the piping, if it is a hot-water system).

Sodrin is such a product. This is a so-called "Boiler Super-Soder" (Dole Valve Co., Chicago). Approximately, the composition of this was 25% Carnauba wax, 9% aluminum powder, and organic and volatile matter comprising in part flaxseed and tobacco dust, 66%.

McCoy's Old Reliable Boiler Liquid (McCoy Mfg. Co., Garwood, N.J.) claimed to "form a metallic weld as strong as the iron in the boiler" and "automatically finds and repairs any new leaks," not to speak of "keeping boiler free from rust and scale and foaming when new." The product was found to consist of waste

paper-mill sulfite liquor, which consists of tannins and organic resinous matter, made soluble by the digestion process with sulfite. A little less than $\frac{1}{2}$ of 1% of the material was matter insoluble in water, and this appeared to be fibrous and pulpy, resembling ground wood fibers. The claims are of course not justified by the nature of the material.

Vinco Liquid Boiler Seal (The Vinco Co., Inc., New York City) for the same general purpose of stopping leaks, was found to be a suspension of powdered sumac in alcohol (8%) and water (70%). There may also have been present some substance high in tannin, such as gum gambier or quebracho extract.

Windsor Boiler Stop Leak Compound (Montgomery Ward & Co.) sold some years ago, had a composition which quite closely paralleled that of the automobile stop-leaks, being a mixture of about 6% of aluminum powder with 94% of flaxseed presscake.

Kenite Boiler Repair (Kenite Laboratory, Inc., New York City) was found to be 28% powdered mica, 25% tannin extract, 47% wood flour and small woody chips.

* * *

In attempts to treat boiler water in a way to correct a small leak, one runs some risk of escaping from the frying pan into the fire, for one user reported that due to the fermentation taking place in the organic matter (flaxseed) contained in the stop-leak product, the odor was so bad that it was necessary to open the windows and ventilate the room every time the radiator air valves acted to vent the accumulated air from the radiators and piping.

Spare that Vitamin C!

UNTIL RECENTLY, nutritionists had advised consumers, in cooking, to cook slowly and with the vessel covered, so far as practicable in order to avoid oxidation of ascorbic acid (vitamin C). This was based upon theoretical rather than practical considerations, for actual experiments by W. W. Floyd and G. S. Fraps, reported in a leading food research journal, have shown that in cooking turnip greens there is less destruction of vitamin C with fast cooking than with slow. It seems that the constant rise of vapors from a vessel in which the vegetable is cooking fast blankets off the atmospheric oxygen and reduces the vitamin-C loss to 16 to 27%, whereas with slow cooking the loss was 24 to 37%, because of the extra time that the oxygen in the water and in the tissues had to come into contact with the food substance.

Another new fact, and a rather surprising one, was that covering the cooking vessel had no protective effect, though nutritionists have always assumed that through decreasing the access of oxygen to the food, covering the vessel should reduce the vitamin loss. It now appears that the access of the oxygen of the air is the primary factor in destruction of vitamin C; that the heating in itself and length of time required for cooking (apart from degree

of access of air to the food) may have no effect, or their effect may be unimportant.

Results of these experiments are expected to have important effects on the techniques of canning certain food products, and should be very important too in their effect on vegetable and fruit cookery in homes and especially in restaurants, where vitamin losses in foods are a particularly serious problem on account of the food being usually held for a considerable time before it is eaten. A paper in the Journal of Agricultural Research reported that in cooking potatoes the vitamin C losses became progressively greater with use of the following methods: steaming, boiling, baking, pressure cooking, but did not exceed 25% with any method. Another experimenter demonstrated the value of using the least practicable quantity of water in boiling vegetables. Experiments with carrots showed that boiling caused a loss of about $\frac{1}{7}$ of the vitamin C content, if it was assumed that the vitamins in the cooking water were used. (If this water were not consumed, vitamin values were lost to the cooking water in an amount proportional to the volume of water used.) The loss with steaming was in about the same amount as took place with boiling when the vitamins in the cooking water were used.

In testing with peas it was found that 85% to 96% of the vitamins were retained by the new method of cooking, with a minimum of water, no stirring, and with the lid of the cooking pan tightly closed to reduce loss of steam to a minimum. Losses due to the old method varied with the different vitamins concerned, but were much greater, being 8 to 10 times greater for thiamine and nicotinic acid. Similar results occurred for broccoli, although a greater percentage of thiamine was lost by either method (33% for the new method, 53% for the old). Losses of carotene, the vitamin A precursor, did not occur with either method of cookery. Losses of mineral matter in the case of broccoli was considerably greater with the old method than with the new.

Mashing of potatoes, in experiments conducted at St. Bartholomew's College, Cambridge, England, was found to

reduce the vitamin C content. Potatoes are rated a good source of vitamin C, particularly for persons who are in the habit of eating them in considerable quantities. Keeping potatoes hot for half an hour resulted in loss of 9/10 of the vitamin C content that was present immediately after mashing. This information is particularly important for restaurants and cafeteria operators and for people who eat in public eating places, where the food after cooking may be held for a considerable time before being eaten. In a small family where the potatoes could be mashed within a very few minutes and served immediately, the loss of vitamin C would not be significant.

In experiments made at the Montana Agricultural Experiment Station it was found that retention of the vitamin C of potatoes was favored by (1) boiling in their jackets and (2) by cooking in a pressure sauce-

pan. Cooking in a pressure saucepan caused a loss of about $\frac{1}{2}$ as much of the vitamin C as boiling by the ordinary method. A further finding of interest was that where circumstances make it necessary to peel potatoes several hours before they are cooked, vitamin C content will be best retained if they are allowed to stand in a 2.5 percent salt solution rather than in fresh water.

To Sum Up

Retention of vitamin C in vegetable cookery seems to be favored by fast cooking rather than slow; covering the vessel is of no advantage. Oxygen of the air rather than the heat applied is the principal factor causing destruction of the vitamin. In cooking potatoes, steaming and boiling were the methods most protective of the vitamin C content. Use of the smallest practicable volume of water for cooking is desirable, especially when the cooking water is not promptly utilized.

★ ★ Flashlight Batteries that Can Be Recharged ★ ★

THERE are many home owners to whom a flashlight is not a luxury but strictly an essential article. For practically everyone living in the country, a flashlight is as necessary an article today as a barnyard lantern used to be. The present scarcity and low quality of flashlight batteries have made a real problem for all who must make frequent or daily use of a portable electric light of some kind.

For some years, rechargeable storage-cell batteries have been offered for use with flashlights. In 1941 Consumers' Research tested several of these and found that they were not fully reliable or satisfactory. Evident-



ly the product has been considerably improved in recent years, for the battery now being offered gives promising performance. The maker is the

Ideal Commutator Dresser Company, Sycamore, Ill., and the battery, which is interchangeable with ordinary flashlight batteries for use in a battery case using two cells in series, sells at \$2.20. The manufacturer claims that one of the batteries is equivalent in life to several hundred dry cells. If this statement is true, the unit would be well worth its total price of \$5.15 (which includes a charger, an essential accessory, for use on 110-120 volt a-c circuits) for anyone who uses a flashlight several hours a month.

Life tests by CR on one of the new *Ideal Quirk Recharge-*

able storage batteries showed it to be performing well after discharging continuously for an accumulated total time of over 75 hours. (This was done by repeating the process of fully charging the battery, then putting it on discharge without interruption until the charge was spent, then recharging.) The battery was also given an additional period of intermittent service—15 minutes on and 15 minutes off—for a total "on" time of 34 hours. (Two fresh pre-war-quality Type D regular dry batteries for flash lamp use should give about 8 hours actual service in a flashlight on intermittent discharge and about 6 hours on continuous discharge.)

Though the test is not yet complete, these results are being reported tentatively in order that the information may be sooner be available to CR's subscribers. On the data given, the *Ideal* rechargeable battery has already given service equivalent to at least 16 sets of Type D batteries of pre-war quality, which at 10 cents for each cell would cost \$3.20. The rechargeable battery itself, therefore, can be considered to have paid its way.

The charger used is of the step-down transformer type with dry-plate rectifier, and

should be good for at least several years' use. The manufacturer recommends that at least one charger be provided for every one or two batteries in use if the service is heavy, and one charger for every three to six batteries for light or casual service.

There is a charging accessory available also for use in an automobile, truck, or bus, taking the very small amount of current required from the car's ignition system.

One factor of practical importance is that the battery takes a considerable time to charge, normally from 10 to 20 hours, with an occasional overcharge recommended, this overcharge to last for 30 to 60 hours.

The cost of electricity used for the actual charging operation is negligible for users of single batteries, in comparison with the cost of electric power obtained from dry cells. (The energy used by the charger being about $1\frac{1}{2}$ watts, approximately the same as for an electric clock.)

Because of the low voltage of the rechargeable cell compared with 2 Type D dry cells which it replaces, a special lamp must be used with it. This lamp is rated 1.9 volts, 0.6 amperes. Such lamps are obtainable from

the manufacturer in both the screw-base type and the fixed-focus type with flange; these are priced at 15c and 20c each respectively. (The manufacturer, however, will not accept orders for less than \$1 worth of lamps or accessories.) When the batteries are to be used in a flashlight case meant for three or five cells, a spacer plug can be furnished (10c each) which fills up the case, using the standard rechargeable battery with spacer in the 3-cell case, and two of the rechargeable batteries in series with a spacer in the 5-cell case. Of course with the 5-cell case, a lamp of higher voltage suited to the two rechargeable batteries in series must be used (3.8 volts, 0.3 amperes or 3.6 volts, 0.5 amperes).

A similar battery made under the same patents but not tested by CR is the *B. F. Goodrich Rechargeable Flashlight Battery*.

It should be noted that the use of rechargeable flashlight batteries is not recommended for those who use a flashlight only at widely separated intervals, as the battery will lose charge and must be charged periodically (every 30 to 60 days) even though it is not in actual service.

Off the Editor's Chest

(Continued from page 2)

which he said, "What I have in mind is that a lot of luxury gadgets and non-essential nonsense will have to be squeezed out of our system of distribution, and that we may decide that some part of this was excess baggage which we'll be better off without."

The practical carrying out of this policy of stripping things down to bare essentials was seen in the development of "Victory" model

gas stoves, baby carriages, bicycles, refrigerators, alarm clocks, pressure canners, and a number of other items. The effort to release consumers from the necessity for buying streamlined, attractively-made essential articles did not "take" very well, and it lasted only for about a year. Even in times of extreme shortages of tools and appliances, millions of consumers preferred to go with-

out or to buy a secondhand article, often at an inordinately high price, rather than to buy one of the new utility models. The simplified "Victory" alarm clocks were so bad that watchmakers refused to repair them when they broke down, as they did promptly. "Victory" baby carriages were a drug on the market. Because of the lack of demand for "Victory" model gas ranges in the United States, one

governmental agency wanted to buy up manufacturers' stocks for shipment to Mexico, where it was thought they might be more appreciated. There were so few purchasers of Victory model pressure canners that these were finally removed from rationing and became generally available in the large department and hardware stores. U.S. consumers, accustomed to household appliances, utensils, and other items that ranked first in the world in efficiency and attractiveness, could not be persuaded to be content with bare utility (or, rather, a government official's idea of what constituted utility and proper convenience in a product).

There are lessons for consumers out of this costly attempt on the part of the war agencies to remake their buying habits. If consumers, in sufficient numbers, refuse to buy, the products that they do not like will soon cease to be made, and to be a problem to dealers and consumers alike. Refusal-to-buy has no application to the meat shortage, but there is another course that has proved effective. One clothing trade association executive pointed out to a group of local merchants that officials found ways of correcting the serious diaper shortage when the volume of mothers' complaints direct to Washington became sufficiently great.

There are already signs that the meat situation is improving somewhat. Since the potential supply of beef is one of the greatest this country has known, there would otherwise have been a serious and politically hazardous scandal. Continued complaints to Senators and Congressmen will undoubtedly bring still further bettering of the situation. The larger issue, however, of how long government war agencies, particularly the OPA, the WPB, and the WFA, are to be allowed to reduce unnecessarily and by arbitrary means, the normal U.S. standard of living is still to be dealt with. The OWI sometime ago outlined its after-V-E-Day propaganda line and indicated interest in continuing its

functions into peace times. One of its projects was to be an educational campaign to get people to eat more of the surplus foods such as fresh fruits and vegetables, dried peas and beans, and wheat.

There are fast-growing doubts in the minds of many Congressmen and Senators of the wisdom and appropriateness of authorizing the continuance of such an agency. Certainly a government bureau to sell the American consumer the idea of being contented with, or at least resigned to, a lower standard of living than he has been used to has no place in this country. (One can readily imagine how far a government bureau would get with Congressional support and appropriations for attempts to sell American labor the idea of accepting wage and salary scales of about the level of the era just after the Spanish-American War or the First World War!) Restlessness over wartime restrictions is growing, points out a weekly business journal, and the battle will come when businessmen, employees, and consumers refuse any longer to admit the necessity for regulation or for propaganda agencies using taxpayers' money to keep consumers, businessmen, and working men sold on the idea of keeping such regulations in effect or extending them to new groups. It is up to consumers who recognize the disparity between what we are permitted to get and what our economy is able to afford to make their wishes in the matter known to their elected representatives in Washington.



**BUY WAR BONDS
AND STAMPS**

Abridged Cumulative Index of Previous 1945 Issues Consumers' Research Bulletins

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† indicates that listings of names or brands are included.

Colored Leads and Colored Lead Pencils



ALMOST everyone has need of "colored pencils" now and then—even the home-maker. Many people, editors, draftsmen, computers, engineers, checkers, use them frequently, and to those to whom these are a necessary part of the working equipment, probably no factor is more important than the lasting quality of the mark made.

Unfortunately most everyone assumes that a pencil mark with almost any kind of pencil is quite permanent. The facts are that traces made with colored pencil leads are often *impermanent*, and the so-called indelible pencil (often used because of its supposedly greater permanence than black lead) may be one of the most "delible," as subsequent listings will show. Black "lead" pencils make marks that are really permanent, except that wear and rubbing of documents may cause the traces of graphite to be lost by being loosened and rubbed off the surface of the paper.

In the test recently made by Consumers' Research, marks made by colored leads for mechanical pencils tended in every case to give less durable writing than the regular wood-encased colored lead pencils. On this account, the mechanical pencil is rather ruled out for this use in spite of the fact that particularly with colored pencils (because of their need for sharpness and for frequent resharpening) it affords a considerable advantage in convenience over

the wood-encased pencil.

So-called fine-lead mechanical pencils using lead of .036 inch in diameter, though much more desirable from the standpoint of quality of the line which they give, are, as a rule, impracticable for use with colored leads, for they tend to give trouble with clogging, and for the process of clearing out the crushed "lead," the services of an expert may be required, or the pencil may even be ruined beyond repair.

Indelible Pencils a Hazard

Some "indelible" pencils were also tested. The consumer should remember that the dye of this kind of pencil is poisonous, but in varying degrees: Black is reported to be the most harmful, followed by violet, blue, brown, red, yellow, and green in order of decreasing toxicity. By all means keep these pencils out of the hands of children at all times. If and when they must be used by adults, take care never to put them into the mouth or to permit them to touch any skin abrasion. By all means guard against any accident in which the point could puncture the skin. This type of accident, usually involving the palm of the hand, is so dangerous potentially that it has been discussed in leading medical journals. Any wound by such a pencil must be regarded as a serious matter, for the anilin dye when introduced into the tissues can cause very dangerous cell damage with necrosis (death of tissues) and ulcera-

tion that may take months and even years to heal.

CR's Tests

The listings which follow are based entirely on the permanence of the markings during the period of about 20 days exposed to ordinary daylight behind a glass window. Black leads made of graphite (plumbago) were not tested as this type of black lead gives no fading at all in light. Leads for mechanical pencils were round leads of standard (.046 inch) diameter except where noted.

Blue Leads for Mechanical Pencils

B. Intermediate

All of the following brands showed slight fading.

Diana No. 151 (J. S. Staedtler, Inc., New York City)

Faber No. 3346 (A. W. Faber, Newark, N.J.)

Longrite (Goldsmith Bros., 77 Nassau St., New York 7, New York)

Scripto (Scripto Mfg. Co., Atlanta, Ga.)

The following brands showed some fading, a little more than the blue leads immediately preceding.

Autopoint (Autopoint Co., Chicago)

Ever-Ready S-1068 (Distributed by The American News Co.)

Eversharp Red Top (Eversharp Inc., Chicago) One box, 10c. Extra thin (.036 in.).

Herald Square 146-B (Distributed by F. W. Woolworth stores)

C. Not Recommended

Eagle T-2518 (Eagle Pencil Co., N. Y. C.) Severe fading.

"Speed" Leads (Empire Pencil Co., Shelbyville, Tenn.) Extra thin (.036

(Continued on page 31)



PHONOGRAPH RECORDS



By Walter F. Grueninger

Please Note: Prices quoted do not include taxes. In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

DURING the past few months Victor has pressed scores of single discs and album sets which many shops have reported out of stock for more than a year. The selections run from Heifetz's brilliant *Hora Staccato* and *Holzappel und Schlehwein* (2 sides) to the La Scala recording of *Il Trovatore* (30 sides). Now is the time to try again for those "impossible-to-get" items.

ORCHESTRA

Mendelssohn: Fingal's Cave Overture. Boston Pops Orchestra under Fiedler. 2 sides, Victor 11-8745. \$1. A romantic overture, part of the standard repertoire. Compared to the best recording heretofore available, Sir Thomas Beecham and the London Philharmonic on Columbia 69400, Fiedler's reading lacks the refinement of Beecham's but is recorded with a little more body. Surfaces swish. **Interpretation B Fidelity of Recording A**

Ravel: Daphnis and Chloé Suite No. 2. Boston Symphony Orchestra under Koussevitzky. 2 sides, Victor SP-1. \$2.25. Music composed in 1912 for the Russian Ballet which I like to hear on rare occasions. Koussevitzky's performance has long been hailed as miraculous. This recording supersedes Ormandy's Victor 16147/8. The loud opening measures of side 2 cause my Audax and Brush pickups to rattle, though the same measures in the Ormandy, recorded at a higher volume level, come through flawlessly. **Interpretation AA Fidelity of Recording A**

Wagner: Lohengrin—Prelude to Act 1. NBC Symphony under Toscanini. 2 sides, Victor 11-8807. \$1. No one conducts this heavenly music, which belongs in every library, better than Toscanini. I see no reason, however, for replacing his earlier recording, Victor 14006, which equals the present one in every respect. My surfaces swish occasionally. **Interpretation AA Fidelity of Recording A**

VOCAL

Moussorgsky: Boris Godounoff Excerpts. Alexander Kipnis (bass) with Victor Symphony Orchestra and Chorus—Berezowsky, conductor. 10 sides, Victor Set 1000. \$5.50. **Interpretation AA Fidelity of Recording AA**

Ezio Pinza (bass) with Orchestra and the Chorus of the Metropolitan Opera under Emil Cooper. Columbia Set 563. \$5.50. **Interpretation A Fidelity of Recording A**

High spots of an intensely dramatic, nationalistic opera—a great work. The music here recorded: "Introduction" and "Coronation Scene," Victor (some cuts) sides 1-3; Columbia 1-4. "City of Kazan," Victor side 4, Columbia omitted. "I Have Attained the Highest Power," Victor and Columbia Side 5. "Duet with Prince," Victor Sides 6 and 7, Columbia omitted. "Hallucination Scene," Columbia Side 6, Victor omitted. "Polonaise," Columbia Side 7, Victor omitted. "Clock Scene," Victor Side 8, Columbia omitted. "Pimen's Tale," Columbia Side 8, Victor omitted. "Farewell" and "Death," Victor and Columbia, Sides 9 and 10. On the whole, the music recorded by Victor and omitted by Columbia is more important than that recorded by Columbia and omitted by Victor. Chaliapin who made this his opera, has left four memorable records which, however, are inferior to the new ones from the viewpoint of fidelity. Nowadays Kipnis and Pinza sing the role at the Metropolitan Opera.

The Victor album presents a carefully integrated performance with conductor, chorus, orchestra as well as soloist contributing to the overall excellence. On the other hand, the

Columbia set is slightly inferior excepting for the performance of the star, Pinza, who appears on six of the ten sides. Kipnis, singing in Russian, stresses the lyric qualities—Pinza, like Chaliapin, the dramatic, with splendid contrasts and an occasional slip on a high note. The fidelity of recording finds Victor out in front in the orchestral and choral departments. The voice of the soloists in both sets is well recorded. To the buyer who wants one set and has not already adopted Pinza as a favorite, Victor Set 1000 is my suggestion. But fortunate is he who can afford to buy Pinza's records, also!

LIGHT, POPULAR AND MISCELLANEOUS

Adair-Hoppe: There's No You & Whiting-Morat: She's Funny That Way. Martha Stewart (vocalist). 2 sides, Victor 20-1671. 50c. These sentimental songs hold little interest for me but Miss Stewart has vocal style. **Interpretation AA Fidelity of Recording A**

Adamson-McHugh: I Don't Care Who Knows It & Donaldson-Greene: Nevada. David Street (vocalist). 2 sides, Victor 20-1683. 50c. Tuneful, slow foxtrots, all vocal. Pleasantly sung. **Interpretation A Fidelity of Recording A**

Arlen-Mercer: That Old Black Magic & Singer-Zaret: One Meat Ball. Jimmy Savo (vocalist-comedian). 2 sides, Decca 23415. 75c. Jimmy Savo's delicate humor, personifying "the little man," has been drawing patrons to a New York night club this season. While some of the fine shading is lost when he is not seen, enough is left to make this record distinctive and thoroughly amusing. **Interpretation AA Fidelity of Recording AA**

Barroso-Drake: Upa Upa & Abreu-OHveira: Tico-Tico. Carmen Miranda (vocalist). 2 sides, Decca 23414. 75c. A samba and a marcha projected with the usual zing of this Latin American performer. **Interpretation AA Fidelity of Recording AA**

Blanco-Morales: Enlloro & Scull: Adios Africa. Xavier Cugat and His Waldorf Astoria Orchestra. 2 sides, Columbia 36808. 50c. Run of the mill Afro-Cubans. **Interpretation AA Fidelity of Recording B**

Brown-Henderson: Let Us All Sing Auld Lang Syne & Fitch-Fitch-Lowe: Sweetheart of All My Dreams. Fred Waring and His Pennsylvanians. 2 sides, Decca 18667. 50c. *Let's All Sing* features a male chorus whereas *overside* is instrumental with a tenor solo. **Interpretation B Fidelity of Recording B**

Finckel: Leave Us Leap Gene Krupa and His Orchestra & Traditional: Dark Eyes Gene Krupa Jazz Trio. 2 sides, Columbia 36802. 50c. Dull foxtrots featuring the drummer Krupa. **Interpretation B Fidelity of Recording B**

Gershwin: How Long Has This Been Going On? & Moore-Lance: I Want A Little Doggie. Lena Horne (vocalist) and The Phil Moore Four. 2 sides, Victor 45-0001. 75c. Done to the Queen's taste, though neither this little known Gershwin number nor the novelty *overside* are outstanding. **Interpretation AA Fidelity of Recording AA**

Gilbert-Lara: You Belong to My Heart & Evans-Mann: There! I've Said It Again. The Modernaires with Paula Kelly. 2 sides, Columbia 36800. 50c. A vocal group, backed by a band, gives these tunes a novel twist. **Interpretation A Fidelity of Recording AA**

Goodman: Slipped Disc & Larkins: Omph Fah Fah. Benny Goodman Sextet. 2 sides, Columbia 36817. 50c. Other novelty foxtrots have interested me more even though the performance is quite remarkable.

Interpretation AA
Fidelity of Recording A

Gordon, Ellington-Ellington: Tonight I Shall Sleep. Tommy Dorsey (trombone) with Duke Ellington and His Famous Orchestra & **Oliver: The Minor Goes Muggin'.** Duke Ellington (piano) with Tommy Dorsey and His Orchestra. 2 sides, Victor 45-0002. 75c. A slow foxtrot, a fast foxtrot, all instrumental and good. But why must these guest appearances cost the consumer an extra 25c?

Interpretation AA
Fidelity of Recording A

Hampton-Davenport: Loose Wig & Hampton-Buckner: Overtime. Lionel Hampton and His Orchestra. 2 sides, Decca 18669. 50c. Dull instrumental foxtrots.

Interpretation B
Fidelity of Recording B

Hammerstein-Rodgers: If I Loved You & Ash: I'm Gonna Love That Girl. Perry Como (vocalist). 2 sides, Victor 20-1676. 50c. One's snappy, one's sentimental—neither worthwhile.

Interpretation B
Fidelity of Recording A

Harbach-Hoschna: Cuddle Up A Little Closer & Parish-Carmichael: Stardust. Ginny Simms (vocalist). 2 sides, Columbia 36796. 50c. No question but that the singer's style is uncommon but it is not always an improvement over the run of the mill. Certainly *Cuddle Up* has been done better.

Interpretation A
Fidelity of Recording AA

Herman: Goosey Gander & Slack-Victor-Herman: A Kiss Goodnight. Woody Herman and His Orchestra. 2 sides, Columbia 36815. 50c. A monotonous novelty instrumental foxtrot backed by one no less dull with a vocal by Woody Herman.

Interpretation B
Fidelity of Recording A

Hodges-Ellington: Mood to be Woood & Strayhorn-Sher-rill-Stewart: Kissing Bug. Duke Ellington and His Famous Orchestra. 2 sides, Victor 20-1670. 50c. *Mood to be Woood*, slow foxtrot featuring saxophone solo; *overside*, an amusing song with a vocal refrain by Joya Sherrill.

Interpretation AA
Fidelity of Recording A

Lambert: What's This? & Krupa-Eldridge: That Drum-mer's Band. Gene Krupa and His Orchestra. 2 sides, Columbia 36819. 50c. Two of the noisiest sides I've heard in months. No pleasure in either.

Interpretation A
Fidelity of Recording B

Loesser: Rodger Young & Praise the Lord and Pass the Ammunition. Nelson Eddy (baritone). 2 sides, Columbia 7426. \$1. War songs dressed up with large orchestra and chorus.

Interpretation AA
Fidelity of Recording AA

Little: I Hope To Die If I Told a Lie & David-Tobias: Maybe It's All for the Best. Ink Spots (vocal-instrumental group). 2 sides, Decca 18657. 50c. Excepting for a few measures of speech by the bass, these are tenor solos with clear diction the principal asset.

Interpretation A
Fidelity of Recording AA

Mario: Chupa-Chupa & Farres: Say It Over Again. Xavier Cugat and His Waldorf Astoria Orchestra. 2 sides, Columbia 36818. 50c. The conga, *Chupa*, is mostly vocal by Miguelito Valdes but *overside*, a bolero, is instrumental excepting for one chorus by Del Campo.

Interpretation A
Fidelity of Recording A

Melke: When I Get To Thinkin' & Broonzy: Oh Baby. Big Bill (Blues Singer). 2 sides, Okeh 6739. 35c. Negro nightclub "singin' and talkin'". Not for me.

Interpretation C
Fidelity of Recording A

Mercer: Dream & Nevins-Gold-Nevins-Dunn: It's Dawn Again. The Three Suns. 2 sides, Majestic 7133. 50c. The instrumental group gets in a few novel effects and the one

chorus vocal by Artie Dunn is better than usual.

Interpretation AA
Fidelity of Recording AA

Mercer-Arlen: June Comes Around Every Year & Out of This World. Tommy Dorsey and His Orchestra. 2 sides, Victor 20-1669. 50c. A haunting tune, *Out of this World*, is badly sung by Stuart Foster who adds nothing to the mediocrity *overside* either.

Interpretation B
Fidelity of Recording A

Mercer-Arlen: Out of This World & Herman: Apple Honey. Woody Herman and His Orchestra. 2 sides, Columbia 36803. 50c. Frances Wayne sings long and badly in *Out of This World* but *overside* is a piece of jive likely to start feet tapping.

Interpretation B
Fidelity of Recording A

Millinder-Smith: Shipyard Social Function & de Lange-Brooks: Who Threw The Whiskey in the Well. Lucky Millinder and His Orchestra. 2 sides, Decca 18674. 50c. A comic song backed by an all instrumental foxtrot, neither of which is outstanding.

Interpretation A
Fidelity of Recording A

Morales-Blanco-Sunshine: Enlloro & Chopin: Polonaise. Carmen Cavallaro (piano) and His Orchestra. 2 sides, Decca 18677. 50c. A gifted pianist takes the spotlight. The rumba is accompanied nearly all of the way by percussion instruments. The foxtrot arrangement of the *Polonaise* presents the full band. An unusually good record in this class.

Interpretation AA
Fidelity of Recording AA

Neill-Mundy: The General Jumped At Dawn & Benjamin-Leveen-Singer: I Will be Home Again. Golden Gate Quartet. 2 sides, Okeh 6741. 35c. The songs are handled expertly but they are worth no more than one hearing.

Interpretation AA
Fidelity of Recording A

Rodgers: Highlights from Oklahoma. James Melton (tenor) Eleanor Steber (soprano) John Charles Thomas (baritone). 6 sides, Victor Set 988. \$2.75. These star singers of classics who try to do Broadway show tunes fall short of the performance of the original Oklahoma cast in Decca Set 359 (\$5). Melton comes off best, Steber second, Thomas third. The supporting chorus is excellent. Presented are the hit tunes "Oklahoma," "Surrey," "Out of My Dreams," "People Will Say," "Beautiful Mornin'," "Kansas City."

Interpretation B
Fidelity of Recording A

Romberg: Up in Central Park. Evans, Farrell, Bruce, Holm (singers). 8 sides, Decca Set 395, \$3.50. The hit numbers from the latest Romberg operetta, now on Broadway. The use of the chorus helps to create show atmosphere. A comparison with the competitive Victor Set 991 reveals greater clarity in Victor's recording.

Interpretation AA
Fidelity of Recording A

Chansons Francaises. Enny De Vries (soprano). Disque International Labels (International Record Company, 27-19 Jackson Avenue, Long Island City 1, N.Y.).

Set #1. 6 sides, \$3.50. A favorite of pre-war European music halls and cafes sings modern French songs expertly. Further on the credit side, is the fine balance between piano and voice and the fullness of the recording; on the debit side, lack of translations and surface noise. Titles include "Un Jour Je Te Dirai," "Si Petite," "Un Amour Comme Le Notre," etc.

Interpretation AA
Fidelity of Recording AA

Set #2. 6 sides, \$3.50. The recording of the instrumental ensemble used in place of the piano in the first set is thin, nasal. The songs which follow the style of those in the first album include "Menilmontant," "Beaucoup," "Parle-Moi D'Autre Chose," "Boum," etc. Other credits and debits, as in first set, apply here, too.

Interpretation AA
Fidelity of Recording B

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a number of reviews, ranging from the motion picture trade press to Parents' Magazine, which rates motion pictures not only on their quality as entertainment but on their suitability in various aspects for children.

It should be emphasized that the motion picture ratings which follow do not represent the judgment of a single person but are based on an analysis of the reviews appearing in some 19 different periodicals. (See January 1945 issue for the sources of the reviews.)

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure	hist—founded on historical incident
bio—biography	mel—melodrama
c—in color (Technicolor or Cinecolor)	mus—musical
car—cartoon	mys—mystery
com—comedy	nov—dramatization of a novel
cri—crime and capture of criminals	rom—romance
doc—documentary	soc—social-problem drama
dr—drama	trav—travelogue
fas—fantasy	war—dealing with the lives of people in wartime
	wes—western

A	B	C		
—	—	5	Adventures of Kitty O'Day.....	cri-com A
—	10	4	Affairs of Susan, The.....	com A
—	5	1	Along Came Jones.....	wes AYC
—	2	5	Army Wives.....	war-com A
—	5	1	Back to Bataan.....	war-dr A
—	4	4	Bedside Manner.....	com A
3	1	—	Bell for Adano, A.....	war-dr A
—	4	12	Belle of the Yukon.....	mus-mel-c A
—	4	—	Bells of Rosarita, The.....	mus-wes AYC
—	7	9	Betrayal from the East.....	war-mel A
—	6	7	Between Two Women.....	dr A
—	1	2	Bewitched.....	dr A
—	2	2	Beyond the Pecos.....	wes AYC
—	3	7	Big Bonanza, The.....	wes A
—	3	5	Big Show-Off, The.....	mus-com A
—	3	5	Block Busters.....	com A
—	2	6	Blonde Fever.....	com A
—	2	3	Blonde from Brooklyn.....	mus-com A
—	—	5	Blonde Ransom.....	mus-com A
1	7	1	Blood on the Sun.....	war-mel A
—	12	3	Body Snatcher.....	cri-mel A
—	—	5	Boston Blackie.....	—
—	2	5	Booked on Suspicion.....	cri-mel AYC
—	11	3	Bowery Champs.....	mel AYC
—	9	4	Brewster's Millions.....	com A
—	12	3	Brighton Strangler, The.....	cri-mel A
—	2	8	Bring On the Girls.....	war-mus-com-c A
—	2	—	Bullfighters, The.....	com A
2	11	4	Can't Help Singing.....	mus-dr AYC
2	2	—	Captain Eddie.....	biog-dr AYC
—	—	5	Castle of Crimes.....	mys-mel A
—	2	5	Chicago Kid.....	cri-mel A
—	7	7	China Sky.....	war-mel A
—	4	4	China's Little Devils.....	war-mel A
—	6	5	Circumstantial Evidence.....	cri-mel A
—	1	3	Cisco Kid Returns.....	wes AYC
1	13	1	Clock, The.....	war-rom A
—	—	—	Col. Blimp (See Life and Death of)	—
2	6	1	Conflict.....	cri-mel A

A	B	C		
5	4	5	Corn Is Green, The.....	dr A
—	2	1	Corpus Christi Bandits.....	wes AYC
—	9	6	Counter-Attack.....	war-dr A
—	—	3	Crazy Knights.....	cri-mel AYC
—	5	4	Crime Doctor's Courage, The.....	mys-dr A
—	5	3	Crime, Inc.....	cri-mel AYC
—	5	1	Cyclone Prairie Rangers.....	mus-wes AYC
—	2	7	Dancing in Manhattan.....	mel A
—	1	6	Dangerous Passage.....	mel A
—	1	2	Dawn Over France.....	hist-dr A
—	5	8	Delightfully Dangerous.....	mus-com A
—	5	7	Destiny.....	mel A
1	11	4	Diamond Horseshoe.....	mus-com-c A
—	7	8	Dillinger.....	cri-mel A
—	3	2	Divorce.....	dr A
—	3	3	Docks of New York.....	cri-mel AYC
—	2	4	Don Juan Quilligan.....	com A
—	5	5	Double Exposure.....	cri-com A
—	5	6	Eadie Was a Lady.....	mus-com A
—	6	7	Earl Carroll Vanities.....	mus-com A
3	6	5	Enchanted Cottage, The.....	dr A
—	2	4	End of the Road.....	cri-mel A
—	2	1	Enemy of the Law.....	mus-wes AYC
—	10	—	Enter Arsene Lupin.....	cri-mel A
—	1	7	Escape in the Desert.....	war-mel A
—	3	4	Escape in the Fog.....	war-mys A
—	3	4	Eve Knew Her Apples.....	mus-com A
—	10	4	Experiment Perilous.....	cri-dr A
—	5	5	Falcon in Hollywood.....	cri-mys A
—	—	—	Farewell, My Lovely (See Murder, My Sweet)	—
—	1	5	Fashion Model.....	cri-mel AYC
—	3	1	Fighting Guardsman, The.....	adv A
12	3	—	Fighting Lady, The.....	war-doc-c AYC
—	11	4	Flame of Barbary Coast.....	mus-mel A
—	4	2	Fog Island.....	mys-mel A
—	5	7	Frisco Sal.....	mus-dr A
—	3	3	Frozen Ghost, The.....	mys-mel A
—	4	5	G. I. Honeymoon.....	war-com A
—	—	3	Gangsters of the Frontier.....	mus-wes AYC
—	6	3	Gentle Annie.....	wes A
—	2	1	Ghost Guns.....	wes AYC
2	7	3	God is My Co-Pilot.....	war-dr AY
—	5	5	Great Flamarion, The.....	cri-mel A
—	6	2	Great John L., The.....	mus-mel A
—	8	2	Grissly's Millions.....	cri-mys A
1	13	3	Guest in the House.....	cri-mel A
—	4	—	Gun Smoke.....	wes AYC
—	5	2	Guy, a Gal, and a Pal, A.....	rom A
—	13	3	Hangover Square.....	cri-mel A
—	4	10	Having Wonderful Crime.....	cri-com A
—	1	9	Her Lucky Night.....	mus-com AYC
—	9	5	Here Come the Co-Eds.....	mus-com AYC
—	13	2	Here Come the Waves.....	war-mus-com A
—	—	8	Hi, Beautiful.....	mus-com A
—	3	7	High Powered.....	mel A
—	3	4	Hitchhike to Happiness.....	mus-com AYC
—	5	1	Hollywood and Vine.....	com AYC
—	8	3	Hollywood Canteen.....	mus-com A
1	2	4	Honeymoon Ahead.....	mus-com A
—	5	7	Horn Blows at Midnight, The.....	com A
—	1	9	Hotel Berlin.....	war-mel A
—	8	4	House of Fear.....	mys-mel AYC
1	1	9	House of Frankenstein.....	cri-mel A
—	1	6	I Accuse My Parents.....	mus-mel A
—	6	2	I Love a Mystery.....	mys A
—	1	5	Identity Unknown.....	war-dr AYC
—	2	14	I'll Be Seeing You.....	war-dr A
—	3	8	I'll Remember April.....	mus-dr A
—	3	2	I'll Tell the World.....	mus-com AYC
1	4	1	Incendiary Blonde.....	mus-mel A

A	B	C		
—	8	7	It's a Pleasure.....	mus-com-c A
1	13	2	It's in the Bag.....	cri-com AYC
—	—	7	Jade Mask, The.....	mys-mel A
—	—	—	John Dillinger (See Dillinger)	—
—	2	3	Jungle Captive.....	mel A
2	8	—	Junior Miss.....	com AYC
—	5	10	Keep Your Powder Dry.....	war-dr A
6	9	1	Keys of the Kingdom.....	dr A
—	1	4	Kid Sister, The.....	com A
—	2	6	Lady Confesses, The.....	cri-mel A
1	5	6	Lake Placid Serenade.....	mus-com AYC
—	—	3	Law of the Valley.....	wes AYC
—	7	3	Leave It to Blondie.....	com AYC
—	4	5	Let's Go Steady.....	mus-com AYC
4	8	2	Life and Death of Col. Blimp.....	war-dr-c A
—	7	—	Lights of Old Santa Fe.....	mus-wes AYC
—	4	4	Main Street After Dark.....	cri-dr A
—	1	6	Man Who Walked Alone.....	war-com A
—	—	3	Marked for Murder.....	mus-wes AYC
—	3	3	Marked Trails.....	wes AYC
2	12	—	Medal for Benny, A.....	dr A
—	4	7	Meet Miss Bobby Socks.....	mus-com AYC
—	1	5	Missing Corpse, The.....	cri-com A
—	5	3	Missing Juror, The.....	cri-mel A
—	11	2	Molly and Me.....	mus-com A
—	2	2	Moulin Rouge.....	mus-com A
3	6	4	Mr. Emmanuel.....	war-dr A
—	4	5	Mummy's Curse, The.....	mys-mel A
—	7	6	Murder, He Says.....	cri-com A
—	3	8	Murder in the Blue Room.....	mus-cri-com A
—	15	2	Murder, My Sweet.....	cri-mys A
—	14	2	Music for Millions.....	mus-dr AYC
—	4	4	My Gal Loves Music.....	mus-com A
6	10	1	National Velvet.....	dr-c AYC
—	2	4	Naughty Nineties, The.....	mus-com AYC
—	3	—	Navajo Trail, The.....	wes AYC
—	5	3	Nevada.....	wes AYC
—	2	6	Night Club Girl.....	mus-com A
—	6	—	Nob Hill.....	mus-dr-c A
3	6	6	None But the Lonely Heart.....	nov A
—	4	5	Nothing But Trouble.....	com AYC
5	6	2	Objective, Burma.....	war-mel A
—	2	1	Old Texas Trail, The.....	mus-wes AYC
1	4	5	On Approval.....	com A
—	4	4	One Body Too Many.....	mys-mel A
—	1	4	One Exciting Night.....	cri-com A
1	9	1	Out of This World.....	mus-com A
1	8	7	Pan-Americana.....	mus-com A
1	9	3	Patrick the Great.....	mus-com AYC
—	1	3	Penthouse Rhythm.....	mus-com A
—	2	4	Phantom of 42nd St., The.....	cri-mel A
—	5	3	Phantom Speaks, The.....	mys-mel A
—	7	8	Picture of Dorian Gray, The.....	dr A
—	6	5	Pillow to Post.....	war-com A
—	2	7	Power of the Whistler.....	mys-mel A
—	13	4	Practically Yours.....	war-com A
2	10	2	Princess and the Pirate, The.....	adv-c A
—	4	4	Rainbow, The.....	war-dr A
—	4	5	Randolph Family, The.....	com A
2	2	1	Rhapsody in Blue.....	mus-biog AYC
—	—	3	Riders of Santa Fe.....	mus-wes AYC
—	—	3	Rockin' in the Rockies.....	mus-wes AYC
—	6	6	Rogues Gallery.....	cri-mel A
—	4	1	Rough Riding Justice.....	wes AYC
—	1	9	Rough, Tough, and Ready.....	war-com A
1	7	7	Roughly Speaking.....	dr A
1	9	6	Royal Scandal, A.....	com A
—	2	2	Saddle Leather Law.....	wes AYC
—	4	2	Sagebrush Heroes.....	mus-wes AYC
—	5	10	Salome, Where She Danced.....	mus-dr-c A
1	9	7	Salty O'Rourke.....	mel A
—	2	1	Sante Fe Saddlemates.....	wes AYC
—	—	7	Scared Stiff.....	mys-com AYC
—	3	4	Scarlet Clue, The.....	mys-mel A
—	4	10	See My Lawyer.....	mus-com AYC
—	4	5	Sergeant Mike.....	war-dr AYC

A	B	C		
—	3	4	Shadow of Suspicion.....	cri-com AYC
—	2	1	Shanghai Drama, The.....	mel A
—	4	4	She Gets Her Man.....	cri-com AYC
—	2	1	Sheriff of Las Vegas.....	wes AYC
—	2	1	Sheriff of Sundown.....	wes AYC
—	5	5	She's a Sweetheart.....	war-mus-dr AYC
1	5	—	Silver Fleet, The.....	war-mel A
—	3	1	Sing Me a Song of Texas.....	mus-wes AYC
—	8	7	Something for the Boys.....	mus-com A
2	4	5	Son of Lassie.....	war-mel-c AYC
—	2	5	Song for Miss Julie, A.....	mus-com A
—	—	10	Song of the Sarong, The.....	mus-adv A
6	9	3	Song to Remember, A.....	hist-dr-c A
1	5	2	Southerner, The.....	soc-dr A
—	2	3	Spell of Amy Nugent, The.....	mel A
—	2	1	Stagecoach to Monterey.....	wes AYC
—	—	4	Steppin' in Society.....	com A
3	1	—	Story of G. I. Joe.....	war-dr AYC
—	4	5	Strange Affair.....	mys-com A
—	6	2	Strange Illusion.....	cri-mel AYC
—	1	2	Stranger from Santa Fe.....	wes AYC
—	6	8	Sudan.....	mus-mel-c A
1	13	2	Sunday Dinner for a Soldier.....	war-com AYC
1	11	4	Suspect, The.....	cri-mel A
—	1	2	Swing in the Saddle.....	mus-wes AYC
—	—	8	Swing Out, Sister.....	mus-com A
—	2	6	Tahiti Nights.....	mus-com A
—	5	5	Tarzan and Amazons.....	adv AYC
—	2	4	Ten Cents a Dance.....	mus-com A
—	7	—	That's the Spirit.....	mus-fan A
—	—	4	There Goes Kelly.....	mus-com AYC
—	2	3	They Came to a City.....	fan A
—	5	2	They Shall Have Faith.....	dr AYC
1	10	5	Thin Man Goes Home, The.....	cri-mel A
8	8	—	Thirty Seconds Over Tokyo.....	war-dr A
—	8	4	This Man's Navy.....	war-dr AYC
—	2	3	Thoroughbreds.....	mel A
—	6	8	Those Endearing Young Charms.....	war-rom A
1	4	—	Thousand And One Nights, A.....	mus-fan-c AYC
8	5	5	Three Caballeros, The.....	mus-car-c AYC
—	3	3	Three Hours.....	war-dr A
—	12	4	3 Is a Family.....	com A
2	9	2	Thrill of a Romance.....	mus-com-c A
1	13	1	Thunderhead, Son of Flicka.....	wes-dr-c AYC
—	13	2	To Have And Have Not.....	war-mel A
1	12	3	Together Again.....	com A
3	13	2	Tomorrow the World.....	war-dr A
1	12	5	Tonight and Every Night.....	war-mus-com-c A
1	5	3	Town Went Wild, The.....	com AYC
7	10	—	Tree Grows in Brooklyn, A.....	dr AY
—	4	2	Twice Blessed.....	com A
—	3	7	Two O'clock Courage.....	cri-mel A
—	1	6	Under Western Skies.....	mus-wes AYC
—	6	9	Unseen, The.....	mys-mel A
—	2	6	Unwritten Code.....	war-mel A
—	5	3	Utah.....	mus-wes AYC
3	8	1	Valley of Decision, The.....	dr A
—	1	8	Vampire's Ghost, The.....	mys-mel A
—	8	4	Very Thought of You, The.....	war-com A
—	4	—	Vigilantes of Dodge City.....	wes AYC
—	2	6	Wait for Me.....	war-dr A
1	7	1	Way Ahead, The.....	war-dr A
—	2	3	We Accuse.....	war-doc A
—	5	—	West of the Pecos.....	wes AYC
—	5	1	West of the Rio Grande.....	wes AYC
—	5	3	What a Blonde.....	com A
—	6	2	When the Lights Go On Again.....	war-dr AYC
—	10	1	Where Do We Go from Here?.....	mus-fan-c A
—	6	9	Winged Victory.....	war-mus-dr A
—	1	4	Within These Walls.....	soc-dr A
—	12	2	Without Love.....	rom A
—	4	2	Woman in Green, The.....	mys-mel AYC
5	11	—	Woman in the Window, The.....	mys-mel A
2	9	1	Wonder Man, The.....	mus-com-c A
—	4	5	Youth on Trial.....	dr A
—	1	8	Zombies on Broadway.....	com A
—	—	8	Zoya.....	war-dr A

The Consumers' Observation Post

[Continued from page 4]

WITH THE RECENT PROPAGANDA CAMPAIGN of the OPA for the renewal of its existence, the latter part of June, now over and successful, consumers who were impressed by the OPA's argument that it was the main bulwark against inflation, will be interested to learn that as early as last May another set of "government experts" were reliably reported to be making plans for "a little well managed inflation." The method of and reason for accomplishing this end was the working out of wage raises to reduce the expected labor disturbances during the period of contract cutbacks and reconversion.

* * *

DISH WASHING needs proper organization and a well worked out method of procedure to take the curse off it. Indeed, U. S. Testing Company goes so far as to say it can be one of the pleasantest household tasks—if it is done right. Lots of hot water is the first requirement. Wash pots and pans while you are getting a meal and always put any remaining ones to soak while the meal is being eaten. After eating, scrape all dishes thoroughly and stack dinner plates, soup plates, saucers, and dishes of similar shape into a single pile. Put table silver all together so that it can be plunged into the soapy water at one time. Fill the dishpan with warm water and make a good suds. Start with the cleanest dishes first. The report by U. S. Testing Company recommends use of a dish mop. Rinse each utensil in a second pan of hot water or with a spray. Glasses and silver should be dried immediately to avoid streaking. Clean dish towels are an important aid.

* * *

NEW PRODUCTS: Nut Meat Container-Chopper-Dispenser (made by Federal Tool Corp., 400 N. Leavitt St., Chicago 12) is available at some F. W. Woolworth and other chain variety stores, at 25c. With plenty of nuts in the stores, this gadget comes in handy for chopping nuts and sprinkling them on gingerbread, puddings, and other sugar-conserving dishes. The device consists of a glass jar container for the nuts and an ingenious chopper device at the top turned

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Use the handy blank on the next page to order a copy for yourself or pass the blank along to an interested friend!

by a metal handle which cuts up the nuts. There is a cap that fits over the top of the dispenser when it is not in use.

Squeez-Ezy "Beauty" self-wringing mop distributed by the Squeez-Ezy Mop Selling Corp., 3113-33 Burdette St., New Orleans 18, at \$1.98, plus postage, should be a boon to housewives who wish to protect their hands against the rigors of mop wringing and too severe or frequent contact with harsh soaps and water. The mop is easy to handle and wrings out dry with little effort (except at the ends where cords are fastened) and was found to be generally satisfactory and convenient in use. The mop-heads are replaceable and can be obtained from the distributor at \$2.94 for three.

Cross Country Pencil Air Gauge (Sears Roebuck's retail stores), Cat. No. 1076, stamped "Acme Air" and reading from 10 to 53 lb. per sq. in., was recently tested by CR; this gauge would be satisfactory, but only if the user knew the amount of its error and allowed for it. The readings of the sample gauge tested were 2 lb. higher than actual, which would result in deficient pressure, and a rate of tire wear about 15% above normal. Tire gauges (which are essential if tires are to be maintained at correct pressure) have been difficult to obtain, but are now becoming generally available. In view of the importance of obtaining maximum tire life under today's conditions, manufacturers should take care that their new gauges read accurately, within better than a pound of the correct pressure.

Wind-O-Swish (sold in Sears Roebuck's retail stores at 10 cents) is a device for wiping windows after washing. It is a rubber squeegee consisting of a wiper blade 5-1/2 inches long, similar to that used in auto wipers, and fastened in a convenient handle. The short length of its blade makes it convenient for windows that are divided into small panes (these are frequently about 6 by 8 inches). For a window with a full-size pane not divided up into smaller rectangles, a considerably longer squeegee, perhaps 10 or 12 inches, would be more suitable. Windows washed by this method are free from streaks and lint, and the task of cleaning windows is greatly simplified.

Sloman's Ironbound Cement is a product sold by hardware stores in a 2 fl. oz. bottle at 35c for attaching rubber to metal, and for "other unusual problems." Analysis shows this product to be a considerable proportion of asphalt (possibly a blown asphalt), together with a small amount of rubber (probably reclaimed), and a small amount of mineral filler dispersed in a light petroleum solvent (a naphtha-like liquid). When tried as recommended for attaching pieces of pre-war inner-tube rubber to aluminum sheet and to galvanized sheet steel, the rubbery cement was found to give an excellent bond with both the metals. (The rubber, however, pulled away almost clean from the cement, with only a moderate pull.)

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Colored Leads and Colored Lead Pencils

(Continued from page 24)

in.). Fading so drastic that the marks completely disappeared, where exposed to light.

Superb (Goldsmith Bros.) Showed severe fading; marks almost disappeared. Another sample similarly labeled gave better performance.

Wood-Encased Pencils, Blue Leads

A. Recommended

The following showed no fading, or very slight fading.

Blue Record (Goldsmith Bros.)
Eagle "Chemi-Sealed" Verithin 740,
Ultramarine (Eagle Pencil Co.)
Eagle "Chemi-Sealed" Verithin 740½,
Sky (Eagle Pencil Co.)
Eagle "Chemi-Sealed" Verithin 741,
Indigo (Eagle Pencil Co.)
Eagle "Chemi-Sealed" Verithin 741½,
Azure (Eagle Pencil Co.)

Red Leads for Mechanical Pencils

C. Not Recommended

With all the following brands of red leads, fading was so drastic that the marks completely or practically disappeared.

Autopoint Real Thin No. 511-RB
(Autopoint Co.) Extra thin (.036 in.).
Autopoint, Jr. Cartridge (Autopoint Co.)
Diana No. 150 (J. S. Staedtler, Inc.)
Eversharp Red Top (Eversharp Inc.)
Extra thin (.036 in.).
Eversharp Red Top Q4-10x (The Wahl Co., Chicago) "Square" leads.
Eversharp Red Top (The Wahl Co.)
Faber "Castelle" (F. W. Faber)
Herald Square 146-R (Distributed by F. W. Woolworth stores)
Longrite (Goldsmith Bros.)
Scripto (Scripto Mfg. Co.)
Speed (Empire Pencil Co.) Extra thin (.036 in.).
Superb, Round (Goldsmith Bros.)

Wood-Encased Pencils, Red Leads

A. Recommended

The following brands showed no fading, or very slight fading.

Eagle "Chemi-Sealed" Verithin 744,
Scarlet Red (Eagle Pencil Co.)
Eagle "Chemi-Sealed" Verithin 745,
Carmine Red.
Eagle "Chemi-Sealed" Verithin 746½,
Tuscan Red.
Eagle "Chemi-Sealed" Verithin 750,
Vermillion Red.

Green Leads for Mechanical Pencils

C. Not Recommended

With all the following brands of green leads, fading was so drastic that the marks completely or practically disappeared.

Longrite (Goldsmith Bros.)
Superb (Goldsmith Bros.)
Wearever. Medium leads.

Wood-Encased Pencils, Green Leads

A. Recommended

The following showed no fading.

Eagle "Chemi-Sealed" Verithin 737½,
Sea Green (Eagle Pencil Co.)
Eagle "Chemi-Sealed" Verithin 738,
Grass Green.
Eagle "Chemi-Sealed" Verithin 738½,
Light Green.
Eagle "Chemi-Sealed" Verithin 739,
Green.
Eagle "Chemi-Sealed" Verithin 739½,
Olive Green.
Green Point (Goldsmith Bros.)
Green Record (Goldsmith Bros.)

Yellow and Orange Leads for Mechanical Pencils

B. Intermediate

Eversharp Red Top (The Wahl Co.)
Yellow leads. Some fading.

C. Not Recommended

Scripto 133 (Scripto Mfg. Co.) Orange leads. Severe fading; marks almost disappeared.

Wood-Encased Pencils, Yellow and Orange Leads

A. Recommended

The following showed no fading.

Eagle "Chemi-Sealed" Verithin 735,
Canary Yellow (Eagle Pencil Co.)
"Especially adapted for marking blueprints."
Eagle "Chemi-Sealed" Verithin 735½,
Lemon Yellow.

Eagle "Chemi-Sealed" Verithin 736,
Yellow Ochre.
Eagle "Chemi-Sealed" Verithin 736½,
Orange Ochre.

B. Intermediate

The following showed some fading.
Eagle "Chemi-Sealed" Verithin 737,
Orange.

Miscellaneous Colored Leads for Mechanical Pencils

A. Recommended

The following showed no fading, or very little fading.

Longrite Indelible (Goldsmith Bros.)
Rite Rite Micrometric (Rite-Rite, Chicago) Purple leads.

Wood-Encased Pencils, Miscellaneous Colored Leads

A. Recommended

The following showed no fading, or very little fading.

Eagle "Chemi-Sealed" Verithin 734,
White (Eagle Pencil Co.)
Eagle "Chemi-Sealed" Verithin 742,
Violet.
Eagle "Chemi-Sealed" Verithin 742½,
Lavender.
Eagle "Chemi-Sealed" Verithin 743½,
Rose.
Eagle "Chemi-Sealed" Verithin 746,
Sienna Brown.
Eagle "Chemi-Sealed" Verithin 747½,
Dark Gray.
Eagle "Chemi-Sealed" Verithin 753,
Silver.
Eagle "Chemi-Sealed" Verithin 754,
Gold.
Snow White (Eberhardt Faber)

B. Intermediate

Indelible pencils (see discussion of these in text).

Eagle Manifold Copying 853, Medium.
Extra Quality Bombay Copying.

C. Not Recommended

With the following, fading was so drastic that the marks completely or practically disappeared.

Eagle "Chemi-Sealed" Verithin 743,
Pink (Eagle Pencil Co.)
Mongol 864 (Eberhardt Faber) Colored "indelible."
Wood-encased 10-cent-store pencils sold in sets.



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